

III. *Lepidoptera Heterocera from Northern China, Japan, and Corea.* By JOHN HENRY LEECH, B.A., F.L.S., F.Z.S., &c.

PART II.

[Read December 7th, 1898.]

IN this portion of my paper the subject is continued to the end of the "Bombyces." Some three hundred and forty species are considered, and these are distributed among seven families as under :—

LIMACODIDÆ	34	LYMANTRIIDÆ	70
LASIOCAMPIDÆ	21	HYPsidÆ	5
PTEROTHYSANIDÆ	1	ARCTIDÆ	193
AGARISTIDÆ	18		

Thirty-four species have not, so far as I am aware, been previously described, and this proportion of novelties corresponds closely to that shown among the species enumerated in the first part of this paper. In addition to these there are thirty-seven other species belonging to the above families which I have described elsewhere, thus making a total of seventy-one, or very nearly one-fifth of the entire number of species now discussed.

Family LIMACODIDÆ.

Genus SCOPELODES.

Westwood, Nat. Libr. 37 (Ent. vii), p. 222 (1841).

354. *Scopelodes venosa*.

Scopelodes venosa, Walk., Cat. Lep. Het., v, p. 1105 (1855); Hampson, Fauna Brit. Ind., Moths, i, p. 374 (1892).

Scopelodes ursina, Butl., Ill. Typ. Lep. Het., vi, p. 3, pl. ci, figs. 7, 8 (1886).

Three male specimens and one female from Moupin,

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and one example of each sex from Omei-shan, taken in June and July.

Distribution. SIKHIM; SYLHET; MOULMEIN; CEYLON (*Hampson*); WESTERN CHINA; JAPAN.

355. *Scopelodes contracta*.

Scopelodes contracta, Walk., Cat. Lep. Het., v, p. 1105 (1855); *Hampson*, Fauna Brit. Ind., Moths, i, p. 375 (1892).

I obtained an example of a *Scopelodes* at Tsuruga in July 1886, which appears to be a female of *S. contracta*. It is rather larger than the male type and is somewhat paler in colour.

Distribution. NORTH CHINA; SIKHIM; JAPAN.

Genus HYPHORMA.

Walker, Cat. Lep. Het., xxxii, p. 493 (1865).

356. *Hyphorma minax*.

Hyphorma minax, Walk., Cat. Lep. Het., xxxii, p. 493 (1865); *Hampson*, Fauna Brit. Ind., Moths, i, p. 375 (1892).

A specimen received from Moupin, where it was taken in June, appears to be a male of this species. The antennæ are pectinated three-fourths of their length and the legs are hairy. Expanse 34 millim.

Distribution. SIKHIM (*Hampson*); NORTHERN and WESTERN CHINA.

357. *Hyphorma sericca*, sp. n.

Antennæ pectinated to the tips. Head, thorax, and abdomen yellowish, the metathorax and adjoining segment of body brownish.

Primaries silky dark brown with an oblique, plumbeous edged, black line from apex to inner margin; a second black line starts from same point and runs parallel with outer margin, the space between these lines is slightly paler than rest of the wing. Secondaries silky, cinnamon brown, fringes preceded by a dark brown line.

Under surface paler than above and without lines on primaries ; legs and body silky golden-brown.

Expanse 36 millim.

One male specimen from Omei-shan, taken in June or July.

Habitat. WESTERN CHINA.

Genus BOMBYCOCERA.

Felder, Reise Nov., Lep., iv, pl. lxxxiii, fig. 13 (1874).

358. *Bombycocera sinensis*.

Setora sinensis, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 93 (1877).

One male specimen from Chang-yang, taken in June ; one female from Wa-shan, taken in May.

Moore's type was from Shanghai.

Habitat. EASTERN, CENTRAL and WESTERN CHINA.

Genus SUSICA.

Walk., Cat. Lep. Het., v, p. 1113 (1855).

359. *Susica pallida*.

Susica pallida, Walk., Cat. Lep. Het., v, p. 1114 (1855) ;

Butl., Ill. Typ. Lep. Het., vi, p. 6, pl. cii, fig. 4 (1886) ;

Hampson, Fauna Brit. Ind., Moths, i, p. 377 (1892).

Tadema sinensis, Walk., Cat. Lep. Het., vii, p. 1759 (1856).

Walker's type was from Shanghai ; my collectors did not meet with this species.

Distribution. EASTERN CHINA ; NEPAL ; SIKHIM ; MOULMEIN.

Genus THOSEA.

Walk. ; Hampson, Fauna Brit. Ind., Moths, i, p. 377 (1892).

360. *Thosea sinensis*.

Anzabe sinensis, Walk., Cat. Lep. Het., v, p. 1093 (1855).

Thosea sinensis, Hampson, Fauna Brit. Ind., Moths, i, p. 379 (1892).

I obtained a male specimen at Gensan in July.

Distribution. HONG KONG ; FORMOSA ; CACHAR ; PEGU ; JAVA (*Hampson*) ; COREA.

361. *Thosea sericea*.

Aphendala sericea, Butl., Trans. Ent. Soc. Lond., 1881, p. 595.

One female example taken at Hakodate by Mr. Andrews.

The species was described from a Tokio specimen.

Habitat. JAPAN and YESSO.

Genus ARCTIOBLEPSIS.

Feld., Wien. ent. Mon., vi, p. 33 (1862).

362. *Arctiolepsis rubida*.

Arctiolepsis rubida, Feld., Wien. ent. Mon., vi, p. 33 (1862).

Described from Ningpo.

Habitat. NORTH-EASTERN CHINA.

Genus PHRIXOLEPIA.

Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 476 (1877).

363. *Phrixolepia sericea*.

Phrixolepia sericea, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 476 (1877); Ill. Typ. Lep. Het., iii, p. 11, pl. xliii, fig. 6 (1879).

Limacodes castaneus, Oberth., Etud. d'Entom., v, p. 41, pl. i, fig. 11 (1880).

Heterogcnea sericea, Staud., Rom. sur Lép., vi, p. 297 (1892).

Specimens from Yokohama, Oiwake and Yesso in Pryer's collection. I obtained the species at Nagasaki in June.

Distribution. AMURLAND; ASKOLD; JAPAN; YESSO; KIUISHIU.

Genus NATADA.

Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 380 (1892).

364. *Natada conjuncta*.

Limacodes (?) *conjuncta*, Walk., Cat. Lep. Het., v, p. 1150 (1855).

Heterogenea conjuncta, Fixsen, Rom. sur Lép., iii, p. 338, pl. xv, fig. 9 (1887).

Miresa conjuncta, Kirby, Cat. Lep. Het., i, p. 549 (1892).

Natada conjuncta, Hampson, Fauna Brit. Ind., Moths, i, p. 381 (1892).

I obtained two male specimens at Gensan in July, and Fixsen also records the species from Corea.

Distribution. FORMOSA; SIKHIM; RANGOON; E. PEGU (*Hampson*); NORTH CHINA; COREA.

Genus PHOCODERMA.

Butler, Ill. Typ. Lep. Het., vi, p. 4 (1886).

365. *Phocoderma velutina*.

Gastropacha velutina, Koll. Hügel, Kasch., iv (2), p. 473 (1844).

Phocoderma velutina, Butl., Ill. Typ. Lep. Het., vi, p. 4, pl. cii, fig. 1 (1886).

Natada rugosa, Walk., Cat. Lep. Het., v, p. 1109 (1855).

Natada velutina, Hampson, Fauna Brit. Ind., Moths, i, p. 382 (1892).

Two male specimens from Chia-ting-fu, one from the province of Kwei-chow, and one example of each sex from Omei-shan.

Distribution. HIMALAYAS; SIND; POONA; BENGAL; CACHAR; BURMA (*Hampson*); WESTERN CHINA.

Genus MONEMA.

Walker, Cat. Lep. Het., v, p. 1112 (1855).

366. *Monema flavescens*.

Monema flavescens, Walk., Cat. Lep. Het., v, p. 1112 (1855);
Butl., Ill. Typ. Lep. Het., ii, p. 14, pl. xxv, fig. 5 (1878).

Miresa flavescens, Staud., Rom. sur Lép., vi, p. 300 (1892).

There were specimens from Yokohama in Pryer's collection and I have received examples from Hakodate,

taken in June and July. I obtained the species at Gensan in June and my collectors met with it at Ichang in August.

Distribution. AMURLAND; JAPAN; YESSO; CENTRAL and NORTHERN CHINA; COREA.

Genus MIRESA.

Walker, Cat. Lep. Het., v, p. 1123 (1855).

367. *Miresa inornata*.

Miresa inornata, Walk., Cat. Lep. Het., v, p. 1125 ♀ (1855);
Butl., Cist. Ent., iii, p. 120 ♂ (1885); Hampson,
Fauna Brit. Ind., Moths, i, p. 386 (1892).

Hereogenca flavidorsalis, Staud., Rom. sur Léop., iii, p. 195,
pl. xi, fig. 7 (1887).

Two specimens from Chang-yang taken in June. There was one example in Pryer's collection and a native collector obtained one at Hakodate in June or July. One of these specimens, which is most certainly referable to *M. inornata*, Dr. Staudinger has identified as his *flavidorsalis*.

The Chinese specimens are rather paler in ground colour and the thorax is more tawny.

Distribution. NORTH-WESTERN HIMALAYAS; NÁGAS (*Hampson*); AMURLAND; JAPAN; YESSO; NORTHERN and CENTRAL CHINA.

368. *Miresa decedens*.

Miresa decedens, Walk., Cat. Lep. Het., v, p. 1125 (1855);
Butl., Ill. Typ. Lep. Het., vi, p. 5, pl. cii, fig. 3
(1886); Hampson, Fauna Brit. Ind., Moths, i, p. 387
(1892).

One male specimen from Ichang in August.

Distribution. ASSAM; NILGIRIS (*Hampson*); CENTRAL CHINA.

369. *Miresa* (?) *pallivitta*.

Miresa pallivitta, Moore, Ann. and Mag. Nat. Hist., (4)
xx, p. 93 (1877).

One female specimen from Ningpo, taken in June. The type was from Shanghai.

Habitat. NORTH-EASTERN CHINA.

370. *Miresa* (?) *fuscicostalis*.

Heterogenea flavidorsalis var. *fuscicostalis*, Fixsen, Rom. sur Lép., iii, p. 337, pl. xv, fig. 10 (1885).

Miresa fuscicostalis, Staud., *op. cit.*, vi, p. 301 (1892).

Fixsen describes this species from Corea. It does not appear to have anything to do with *M. flavidorsalis*. Dr. Staudinger suggests that it is not a *Miresa* and that the figure has the aspect of a *Plusia*.

Distribution. COREA; AMURLAND.

Genus PARASA.

Moore, Cat. Lep. E.I.C., p. 413 (1859).

371. *Parasa consocia*.

Parasa consocia, Walk., Cat. Lep. Het., Suppl. ii, p. 484 (1865).

Parasa humeralis, Swinhoe, Cat. Lep. Het., Oxford, p. 230 (1892).

Parasa tessellata, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 93 (1877).

Heterogenea princeps, Staud., Rom. sur Lép., iii, p. 199 (1887).

Næra princeps, Staud., *l. c.*, pl. xv, fig. 7.

There was a specimen in Pryer's collection. I obtained the species at Gensan in July and I have received it from Chang-yang.

Dr. Staudinger has identified my Korean specimen as his *princeps*, and this together with the other two specimens agree well with the figure (*l. c.*).

Distribution. AMURLAND; JAPAN; COREA; NORTHERN and CENTRAL CHINA.

372. *Parasa hilarata*.

Heterogenea hilarata, Staud., Rom. sur Lép., iii, p. 298 (1887).

Nærasa sinica, Staud., *op. cit.*, vi, p. 298 (1892).

I received this species from Chang-yang and Ichang, taken in July; these specimens agree well with a long series of bred specimens from Amurland.

This species cannot be regarded as synonymous with

H. sinica, Moore, the latter having dark secondaries as in *hilarula*, Staud., of which I have also specimens from Amurland.

Distribution. AMURLAND; CENTRAL CHINA.

373. *Parasa sinica*.

Parasa sinica, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 93 (1877).

Heterogenea hilarula, Staud., Rom. sur Lép., iii, p. 197 (1887).

Nearasa hilarata, Staud., Rom. sur Lép., vi, p. 298 (1892).

H. sinica appears to be separable from *H. hilarata* by the uniform fuscous secondaries. The hind marginal border of primaries is variable in width and also in the depth of the indentation. In one Gensan specimen the band is very narrow and not in the least indented.

I have examples from Hakodate and Gensan, and there were specimens from Yokohama in Pryer's collection.

Distribution. AMURLAND; JAPAN; YESSO; COREA.

374. *Parasa lepida*.

Noctua lepida, Cram., Pap. Exot., ii, pl. cxxx, fig. E. (1777).

Limacodes graciosa, Westw., Cab. Orient. Ent., p. 50, pl. xxiv, fig. 4 (1848).

Parasa lepida, Hampson, Fauna Brit. Ind., Moths, i, p. 388 (1892).

One female specimen from Pu-tsu-fong, taken in July, and two examples of the same sex from Ichang, taken in August.

Distribution. Throughout INDIA and CEYLON; JAVA (*Hampson*); CENTRAL and WESTERN CHINA.

375. *Parasa bicolor*.

Næra bicolor, Walk., Cat. Lep. Het., v, p. 1142 (1855).

Parasa bicolor, Butl., Ill. Typ. Lep. Het., vi, p. 7, pl. cii, fig. 11 (1886); Hampson, Fauna Brit. Ind., Moths, i, p. 390 (1892).

One male specimen from Omei-shan taken in June or July.

Distribution. SIKHIM; throughout Continental INDIA and BURMA (*Hampson*); WESTERN CHINA.

376. *Parasa prasina*.

Parasa prasina, Alph., Deuts. Ent. Zeit. 1895 (Iris, viii), p. 186 (1895).

Alphéraky describes a male specimen from Ta-tsien-lou, where it was taken in June by Potanine. He states that it is distinguished from all other species of the genus by its green secondaries.

Habitat. WESTERN CHINA.

Genus CANIA.

Walk., Cat. Lep. Het., v, p. 1177 (1855).

377. *Cania bilinea*.

Neæra bilinea, Walk., Cat. Lep. Het., v, p. 1142 (1855).

Cania sericea, Walk., Cat., v, p. 1178 (1855); Butl., Ill. Typ.

Lep. Het., vi, p. 8, pl. cii, fig. 7 (1886).

Cania bilinea, Kirby, Cat. Lep. Het., i, p. 550 (1892);

Hampson, Fauna Brit. Ind., Moths, i, p. 395 (1892).

One female specimen taken in June or July at Omei-shan.

Distribution. DHARMSÁLA; SIKHIM; MANIPUR; GANJAM; S. INDIA; MALACCA; JAVA (*Hampson*); WESTERN CHINA.

Genus RHAMNOSA.

Fixsen, Rom. sur Lép., iii, p. 339 (1887).

378. *Rhamnosa angulata*.

Rhamnosa (?) *angulata*, Fixsen, Rom. sur Lép., iii, p. 339 (1887).

Ramesa (?) *angulata*, Fixsen, *l. c.*, pl. xv, fig. 1.

Described from Corea. I have not seen an example of it.

Habitat. COREA.

Genus MICROLEON.

Butl., Cist. Ent., iii, p. 121 (1885).

379. *Microleon longipalpis*.

Microleon longipalpis, Butl., Cist. Ent., iii, p. 121 (1885);

Leech, Proc. Zool. Soc. Lond., 1888, p. 610.

There were specimens from Yokohama in Pryer's

collection. I met with the species in Satsuma in May, at Fujisan in June, and at Tsuruga in July.

Distribution. JAPAN; KIUSHIU; COREA.

380. *Microleon divisa*.

Setora divisa, Leech, Entom., xxiii, p. 83 (1890).

Described from a female specimen taken at Chang-yang in June. In the original description the type was stated to be a male, this was an error which I now take the opportunity of correcting.

Habitat. CENTRAL CHINA.

Genus HETEROGENEA.

Knoch, Beitr. Ins., iii, p. 60 (1793).

381. *Heterogenea uncula*.

Heterogenea uncula, Staud., Rom. sur Lép., iii, p. 197, pl. xi, fig. 9 (1887).

Specimens from Yokohama, Oiwake, and Yesso in Pryer's collection: one example from Ichang taken in August.

Distribution. AMURLAND; JAPAN; YESSO; CENTRAL CHINA.

382. *Heterogenea testudina*.

Heterogenea testudina, Alph., Rom. sur Lép., vi, p. 15 (1892).

Alphéraky describes this species from Ou-piu in the province of Kan-sou, and suggests that it may probably be a local race of *H. limacodes*, Hufn. (= *Apoda arellana*, Kirby, Cat. Lep. Het., i, p. 552).

Habitat. WESTERN CHINA.

383. *Heterogenea (?) obliqua*.

Heterogenea obliqua, Leech, Entom., xxiii, p. 83 (1890).

One male specimen from Chang-yang, taken in July.

Habitat. CENTRAL CHINA.

384. *Heterogenea (?) dentatus*.

Limacodes dentatus, Oberth., Etud. d'Entom., v, p. 42, pl. i, fig. 10 (1880).

Heterogenea dentatus, Staud., Rom. sur Lép., vi, p. 298 (1892).

Apoda dentatus, Kirby, Cat. Lep. Het., i, p. 552 (1892).

I have one example from Gensan taken in July.

Distribution. AMURLAND; ASKOLD; COREA.

Genus *NAROSA*.

Walk., Cat. Lep. Het., v, p. 1151 (1855).

385. *Narosa culta*.

Narosa culta, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 356 (1879).

Four specimens from Yokohama in Pryer's collection. My native collector obtained one example at Gensan in August.

Distribution. JAPAN; COREA.

386. *Narosa fulgens*.

Heterogenea fulgens, Leech, Proc. Zool. Soc. Lond., 1888, p. 609, pl. xxx, fig. 18.

The male type was from Ningpo and measures 20 millim. in expanse; Gensan females are 22 millim. Two female specimens received from Chang-yang are much larger, one is 28 millim. and the other 32 millim. The species occurs in July.

Distribution. NORTH-EASTERN and CENTRAL CHINA; COREA.

Genus *BELIPPA*.

Walk., Cat. Lep. Het., xxxii, p. 508 (1865).

387. *Belippa horrida*.

Belippa horrida, Walk., Cat. Lep. Het., xxxii, p. 509 (1865).

One female specimen from Kiukiang taken in June.

Habitat. CENTRAL and SOUTHERN CHINA.

Family LASIOCAMPIDÆ.

Genus *DENDROLIMUS*.

Germar, Syst. Gloss. Prodr., p. 48 (1812).

388. *Dendrolimus pini*.

Bombyx pini, Linn., Syst. Nat., i, p. 498 (1758).

Dendrolimus pini, Kirby, Cat. Lep. Het., i, p. 813 (1892).

- Eona punctata*, Walk., Cat. Lep. Het., vi, p. 1418 (1855).
Lasiocampa remota, Walk., l. c., p. 1439.
Lebeda hebes, Walk., l. c., p. 1462.
Odonestis superans, Butl., Ill. Typ. Lep. Het., ii, p. 19,
 pl. xxvii, fig. 4 (1878).
Eona spectabilis, Butl., l. c., p. 19, pl. xxvii, fig. 3.
Eona segregata, Butl., l. c., p. 20, pl. xxvi, figs. 6, 7.
Eutricha dolosa, *fentoni*, and *zonata*, Butl., Trans. Ent. Soc.
 Lond., 1881, pp. 16, 17.
Eutricha pini, Leech, Proc. Zool. Soc. Lond., 1888, p. 627.
Eutricha remota, Leech, l. c., p. 628.

As I have now a very much larger amount of material than when dealing with these insects in my former paper, I have been obliged to considerably alter my views respecting them. I am inclined to the opinion that all the above are simply forms of *D. pini*.

A series of sixty-four specimens from Japan compared with a series of sixty-three from Europe show an almost equal amount of variation.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; NORTHERN CHINA.

389. *Dendrolimus flaveola*.

- Bombyx flaveola*, Motsch., Bull. Mosc., xxxix, p. 192 (1866).
Dendrolimus flaveola, Kirby, Cat. Lep. Het., i, p. 813
 (1892).

Motschulsky described this species from Japan, but I am unable to identify it from the description with any species of *Dendrolimus* from Japan in my collection.

Habitat. JAPAN.

390. *Dendrolimus undans*.

- Lebeda undans*, Walk., Cat. Lep. Het., vi, p. 1458 (1855).
Metanastris undans, Hampson, Fauna Brit. Ind., Moths, i,
 p. 410 (1892).
Bombyx fasciatella, Mén. Bull. de l'Acad. Pétersb., xvii,
 p. 218 (1858); Schr. Amur. Reisen, p. 55, pl. iv,
 fig. 8 (1859); Fixsen, Rom. sur Léop., iii, p. 344
 (1877).
Dendrolimus fasciatella, Kirby, Cat. Lep. Het., i, p. 813
 (1892).

Odonestis excellens, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 481 (1877) ; Ill. Typ. Lep. Het., ii, p. 19, pl. xxvi, figs. 4, 5 (1878).

Odonestis excellens, var. *unicolor*, Oberth., Etud. d'Entom., v, p. 38 (1880).

A fine series from Yokohama.

The specimens vary in size and also in the intensity of the markings ; most of them are of the type form (*undans* = *excellens*), but a few females are referable to the faintly marked form *unicolor*, Oberth.

Distribution. AMURLAND ; JAPAN ; COREA ; SYLHET.

Genus BHIMA.

Moore, Proc. Zool. Soc. Lond., 1888, p. 405.

391. *Bhima potanini*.

Pyrosis potanini, Alph., Iris, viii, p. 186 (1895).

Bhima potanini, Alph., Rom. sur Lép., ix, p. 133 (1897).

Alphéraky records this species, which appears to be closely allied to "*Pyrosis*" *eximia*, Oberth., and "*Pyrosis*" *idiota*, Graeser, from the Kham country.

Habitat. WESTERN CHINA.

Genus CLISIOCAMPA.

Stephens, Ill. Brit. Ent., Haust., ii, p. 48 (1829).

392. *Clisiocampa neustria*.

Bombyx neustria, Linn., Syst. Nat., i, p. 500 (1758) ; Staud., Rom. sur Lép., vi, p. 314 (1892).

Clisiocampa testacea, Motsch., Etud. Ent., 1860, p. 32.

Specimens from Yokohama, Oiwake and Yesso in Pryer's collection. I obtained the species at Nagasaki in June and at Gensan in July, and my native collector took some examples at Nikko. A few specimens were bred at Chung-King in the month of May, and others were captured at Kiukiang and Pu-tsu-fong in June and July.

My series of this species from Eastern Asia is very variable ; in one male example there are no transverse lines and in another specimen only one line is indicated ; in a third example of the same sex the colour is darker than that proper to the female.

Distribution. EUROPE.—AMURLAND ; JAPAN ; YESSO ; COREA ; NORTHERN, CENTRAL, and WESTERN CHINA.

Genus PÆCILOCAMPA.

Steph., Ill. Brit. Ent., Haust., ii, p. 43 (1828).

393. *Pæcilocampa subpurpurea*.

Pæcilocampa subpurpurea, Butl., Trans. Ent. Soc. Lond., 1881, p. 18.

Described from Tokio.

Habitat. JAPAN.

Genus KOSALA.

Moore, Proc. Zool. Soc. Lond., 1897, p. 407.

394. *Kosala sanguinea*.

Kosala sanguinea, Moore, Proc. Zool. Soc. Lond., 1879, p. 408, pl. xxxiii, fig. 8; Hampson, Fauna Brit. Ind., Moths, i, p. 418 (1892).

One specimen was received from Omei-shan, it was taken in June or July.

Distribution. SIKHIM; KHÁSIS (*Hampson*); WESTERN CHINA.

Genus CRINOCRASPEDA.

Hampson, Fauna Brit. Ind., Moths, i, p. 420 (1892).

395. *Crinocraspeda ? inexperta*, sp. n.

Primaries greyish brown with a slight violet tinge; the medial area of the wing traversed by two blackish lines, the first crenulate and curved, the second indented and angled below costa, then curved and recurved to inner margin, where it is outwardly edged with whitish; the basal area, limited by the first line, is brown; there is a small white discal spot, a black mark, bordered on each side with whitish, on the inner margin between second line and outer angle; submarginal line blackish but indistinct. Secondaries fuliginous brown with greyish scales on costal area. Fringes dark grey chequered with whitish. Under surface fuliginous brown; all the wings have a dusky medial band, and the primaries have two patches of iridescent greenish scales at the apex.

Thorax dark brown, patagia greyish; abdomen dark brown.

Expanse 42 millim.

One male specimen taken by myself in the Snowy Valley near Ningpo in April.

Habitat. NORTH-EASTERN CHINA.

I have referred this species doubtfully to *Crinocraspeda*; but a new genus will probably have to be made for it. Vein 8 of secondaries is connected with vein 7 by a bar, but there are no accessory veinlets as in the *Odonestis* section of *Lasiocampidæ*, and the cell is open. The outer margins of the primaries are slightly crenulate, but those of the secondaries are not.

Genus TRABALA.

Walker, Cat. Lep. Het., vii, p. 1785 (1856).

396. *Trabala vishnu*.

Gastropacha vishnu, Lef., Zool. Journ., iii, p. 207 (1827).

Gastropacha sulphurea, Koll., Hügel's Kaschmir, iv, p. 471 (1848).

Amydona basalis, Walk., Cat. Lep. Het., vi, p. 1415 (1855).

Trabala vishnu, Hampson, Fauna Brit. Ind., Moths, i, p. 421 (1892).

I have a male specimen from Ichang, and a female from Kiukiang, both taken in August.

Distribution. Throughout INDIA, CEYLON, and BURMA (*Hampson*); CENTRAL CHINA.

Genus ODONESTIS.

Germer, Prodr. Syst. Lep., ii, p. 49 (1812).

397. *Odonestis potatoria*.

Bombyx potatoria, Linn., Syst. Nat., xii, p. 813.

Odonestis potatoria, var. *askoldensis*, Oberth., Etud. d'Entom., v, p. 38 (1881).

Philudoria potatoria, Kirby, Cat. Lep. Het., i, p. 820 (1892).

Odonestis albomaculata, Brem., Lep. Ost-Sib., p. 42, pl. iv, fig. 6 ♂, iii, fig. 20 ♀ (1864).

Odonestis potatoria, Leech, Proc. Zool. Soc. Lond., 1888, p. 628.

There were specimens from Yokohama in Pryer's collection, and I obtained examples at Hakone and Gensan.

I think that if Dr. Staudinger had had an opportunity of seeing a good and variable series of this species from Japan he would not have been inclined to uphold *albo-*

maculata, Brem., as a distinct species (Rom. sur Lép., vi, p. 317); he says that it may be distinguished from *O. potatoaria* by its smaller size, but this certainly does not apply to Japanese specimens.

In some examples of the dark form of the female from Japan the white spots on primaries are large and confluent, whilst in one specimen of each sex there is but one spot, and this is only faintly indicated. Between the extremes representing *potatoria* and *albomaculata* all the connecting grades are shown in my series.

Distribution. EUROPE.—AMURLAND; JAPAN; COREA.

398. *Odonestis directa*.

Odonestis directa, Swinhoe, Cat. Lep. Het., Oxford, p. 261, pl. vi, fig. 4 (1892).

Probably a form of *O. potatoaria*. The name *directa* cannot stand, as the species described by Walker as "*Megasoma*" *directa* is an *Odonestis*.

Habitat. JAPAN.

399. *Odonestis læta*.

Amydona læta, Walk., Cat. Lep. Het., vi, p. 1416 (1855).

Odonestis læta, Hampson, Fauna Brit. Ind., Moths, i, p. 425 (1892).

Philudoria læta, Kirby, Cat. Lep. Het., i, p. 820 (1892).

I have a male specimen from Tsuruga, which I believe is the only example recorded from Japan, and three females from Kiukiang; the latter were taken in May and June, and the former was captured by myself in July.

Distribution. AMURLAND; JAPAN; COREA; CENTRAL CHINA.

400. *Odonestis inobtrusa*.

Lasiocampa inobtrusa, Walk., Trans. Ent. Soc. Lond., (3) i, 1862, p. 85.

Odonestis læta (part) Hampson, Fauna Brit. Ind., Moths, i, p. 425 (1892).

I have a fine bred series of this species from Chia-ting-fu and one example from Ta-chien-lu. The specimens are much redder in colour and the spots on primaries are sometimes golden-yellow and rather larger than in the

type. In seven of the fourteen males the discal spot is black. One cocoon was also received, this is whitish in colour, thickly covered with reddish-brown hairs, and very pointed towards each extremity.

I would propose that this form of *O. inobtrusa* should bear the varietal name *chinensis*.

Distribution. INDIA; WESTERN CHINA.

401. *Odonestis brevivenis*.

Chrostogastria brevivenis, Butl., Cist. Ent., iii, p. 119 (1885).

Odonestis brevivenis, Kirby, Cat. Lep. Het., i, p. 811 (1892).

Two specimens taken by a native collector at Hakodate in June; there was one example from Nikko in Pryer's collection, and Butler's type was from the same locality.

Habitat. JAPAN.

402. *Odonestis pruni*.

Bombyx pruni, Linn., Syst. Nat., i, p. 498 (1758); Hübn., Bomb., fig. 186 (1804?).

Odonestis pruni, Kirby, Cat. Lep. Het., i, p. 811 (1892); Alph., Rom. sur Léop., ix, p. 133 (1897).

Specimens in Pryer's collection from Yokohama and Nikko. I took one example at Hakodate, and have received one from Pu-tsu-fong, taken in June or July. Alphéraky records a male example taken in August at Li-fan-fou, province of Sé-Tchouen.

Distribution.—EUROPE.—AMURLAND; JAPAN; YESSO; WESTERN CHINA.

403. *Odonestis hampsoni*, sp. n.

Primaries reddish brown; transverse lines similar as regards position to those of *O. inobtrusa*, but not clearly defined. At the outer extremity of the cell there is a pale golden bar and a dot of the same colour above it. Secondaries fuscous brown becoming reddish brown towards outer margin. Under surface reddish brown with indications of the discal bar on primaries.

Expanse 40 millim.

Two male specimens from Pu-tsu-fong, taken in June or July. In one example the bar at the end of the cell of primaries is represented by two dots.

Habitat. WESTERN CHINA.

Genus ARGUDA.

Moore ; Hampson, Fauna Brit. Ind., Moths, i, p. 412 (1892).

404. *Arguda bipartita*, sp. n.

Head and thorax pale brown, the head and prothorax striped with reddish brown : abdomen clothed with long silky reddish brown hair, anal tuft rather paler.

Primaries warm cinnamon brown tinged with cinereous on basal half, and less strongly on the outer marginal area ; there are three oblique transverse lines, the first cinnamon brown, the second of the same colour but externally edged with greyish and rather wavy, the third is dusky and irregular. Secondaries warm cinnamon brown tinged with cinereous on abdominal margin. Fringes of all the wings slightly darker than the ground colour. Under surface pale brownish ; the primaries are reddish brown along the costa, there is a narrow brown transverse band beyond the middle and this is followed by a reddish brown transverse shade ; the secondaries have an irregular reddish brown band before the middle and the outer marginal area is tinged with brown and clouded with darker.

Expanse 70 millim.

One male specimen from Pu-tsu-fong, captured in June or July.

Habitat. WESTERN CHINA.

Genus GASTROPACHA.

Ochs., Schmett., Eur., iii, p. 239 (1810).

405. *Gastropacha quercifolia*.

Bombyx quercifolia, Linn., Syst. Nat., p. 497 (1758) ;
Hübner, Bomb., figs. 187, 188 (1804 ?).

Gastropacha quercifolia, var. *ceroidifolia*, Feld., Wien. ent.
Mon., vi, p. 35 (1862).

Occurs at Yokohama and Fujisan. A specimen that I reared from a larva obtained at Gensan is pale, but the Japanese examples are richly coloured.

Distribution. EUROPE.—AMURLAND ; JAPAN ; COREA ;
NORTH-EASTERN CHINA.

406. *Gastropacha populifolia*.

Bombyx populifolia, Esp., Schmett., iii, p. 62, pl. vi, figs. 3,
4, pl. vii, fig. 1 (1782).

Gastropacha angustipennis, Walk., Cat. Lep. Het., vi, p. 1394 (1855).

I obtained a specimen at Hakodate in August.

The type of *G. angustipennis* is in the National Collection at South Kensington. The specimen is from "N. China," and is in poor condition.

Distribution. EUROPE.—AMURLAND; YESSO; COREA; NORTH CHINA.

Genus PHYLLODESMA.

Hübner, Verz. bek. Schmett., p. 190 (1822?).

407. *Phyllodesma ilicifolia*.

Bombyx ilicifolia, Linn., Faun. Succ., p. 293 (1761).

Gastropacha ilicifolia, var. *japonica*, Leech, Proc. Zool. Soc. Lond., 1888, p. 628.

Phyllodesma ilicifolia, Kirby, Cat. Lep. Het., i, p. 824 (1892).

A male specimen and two females from Yesso in Pryer's collection.

In the Japanese form, var. *japonica*, all the wings are pale reddish brown, and all the violet-tinged white markings are well defined.

Distribution. EUROPE.—AMURLAND; YESSO.

Genus MALACOSOMA.

Hübner, Verz. bek. Schmett., p. 192 (1822?).

408. *Malacosoma ? flavomarginata*.

Bombyx flavomarginata, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. xcii (1886).

Malacosoma flavomarginata, Kirby, Cat. Lep. Het., i, p. 819 (1892).

A male and two females from Moupin are noted by Poujade.

Habitat. WESTERN CHINA.

Family PTEROTHYSANIDÆ.

Genus PTEROTHYSANUS.

Walker, Cat. Lep. Het., ii, p. 401 (1854).

408? *Pterothysanus lanaris*.

Pterothysanus lanaris, Butl., Ann. and Mag. Nat. Hist., (5) xiv, p. 406 (1884).

Described from "Shanghai?" As there appears to be some uncertainty about the locality I am inclined to think that if the insect came from China at all, it must have been from the southern part of that country.

Hampson, Fauna Brit. Ind., Moths, i, p. 430, refers *P. lanaris* to *P. laticilia*, Walk., as a form of that species.

Kirby (Cat. Lep. Het., i, p. 427) places *Pterothysanus* in *Nyctemeridæ*.

Habitat. EASTERN CHINA?

Family LYMANTRIIDÆ.

Genus ORGYIA.

Ochs., Schmett., Eur., iii, p. 208 (1810).

409. *Orgyia gonostigma*.

Bombyx gonostigma, Fabr., Syst. Ent., p. 585 (1775), Hübn., Bomb., fig. 78.

Notolophus gonostigma, Kirby, Cat. Lep. Het., i, p. 493 (1892).

Orgyia approximans, Butl., Trans. Ent. Soc. Lond., 1881, p. 10.

Orgyia gonostigma, Leech, Proc. Zool. Soc. Lond., 1888, p. 626.

One example from Oiwake in Pryer's collection.

Distribution. EUROPE.—AMURLAND; JAPAN.

410. *Orgyia thyellina*.

Orgyia thyellina, Butl., Trans. Ent. Soc., 1881, p. 10, ♂; Leech, Proc. Zool. Soc. Lond., 1888, p. 625, pl. xxxi, figs. 7, 7A ♀.

Notolophus thyellinus, Kirby, Cat. Lep. Het., i, p. 495 (1892).

Occurs at Yokohama, Oiwake, and Tokio.

The series in Pryer's collection comprised eight males and seven females, four of the latter have well developed wings, but the other three have dwarfed wings, although the markings thereon are a reproduction in miniature of those on the wings of the fully-developed females.

Habitat. JAPAN.

411. *Orgyia leechei*.

Orgyia prisca, Leech, Entom., xxiii, p. 111 (1890).

Notolophus leechei, Kirby, Cat. Lep. Het., i, p. 495 (1892).

Appears to be common at Chang-yang; I also received specimens from Ship-y-shan and Ichang, and from most of the localities in Western China that were visited by my collectors.

As "*prisca*" had been previously used in *Orgyia*, Mr. Kirby has renamed this species. Staudinger (Rom. sur Lép., vi, p. 303) states that he has an example from Tschifu of a species allied to *O. ericæ*; this may be identical with the above.

Habitat. CENTRAL and WESTERN CHINA.

Genus AROA.

Walk., Cat. Lep. Het., iv, p. 791 (1855); Hampson, Fauna Brit. Ind., Moths, i, p. 437 (1897).

412. *Aroa socrus*.

Gynæphora socrus, Geyer., Hübn. Zutr., v, p. 12, figs. 837, 838.

Aroa substrigosa, Walk., Cat. Lep. Het., iv, p. 794 (1855);
Butl., Ill. Typ. Lep. Het., v, p. 54, pl. xc, fig. 5 (1881).

Aroa socrus, Hampson, Fauna Brit. Ind., Moths, i, p. 439 (1892).

Female. Wings rather longer than those of the male, and more thinly scaled.

Male specimens were received from Ta-chien-lu, Chow-pin-sa, Pu-tsu-fong, Wa-ssu-kow, Chia-ting-fu, Huang-mu-chang, Chia-kou-ho, the province of Kwei-chow, Ichang, and Ship-y-shan. Those from the two localities last named are bright reddish orange.

Of the female, which sex has not been previously described so far as I can ascertain, I have four specimens

from Chia-kou-ho, Chia-ting-fu, and Ichang. The specimen from the locality last named is pinkish, streaked with fuscous on primaries, one from Chia-kou-ho is pale pinkish, and the other two are whitish with a faint ochreous tinge.

Distribution. ASSAM; KHÁSIS; NÁGA; and KAREN HILLS; JAVA (*Hampson*); CENTRAL and WESTERN CHINA.

413. *Aroa flavicollis*.

Crinola flavicollis, Leech, Entom., xxiii, p. 111 (1890).

Twelve male specimens from Chang-yang, taken in June and July, and two females from Chia-kou-ho, obtained in July. These last are entirely whitish, and the thorax is of the same colour as the collar.

Habitat. CENTRAL and WESTERN CHINA.

414. *Aroa* (?) *jonasi*.

Aroa jonasi, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 402 (1877); Ill. Typ. Lep. Het., ii, pl. xxiii, fig. 11 (1878); Leech, Proc. Zool. Soc. Lond., 1888, p. 647.

A fine series from Yokohama and Oiwake in Pryer's collection. I obtained specimens in Satsuma in May, at Nagasaki in June, Gensan in July, and Hakone in August.

I have left this species in *Aroa* although it does not appear to be rightly placed therein, and a new genus will probably have to be made for its reception.

Habitat. JAPAN.

Genus LÆLIA.

Steph.; Hampson, Fauna Brit. Ind., Moths, i, p. 440 (1892).

415. *Lælia cœnosa*.

Bombyx cœnosa, Hübn., Bomb., figs. 218, 323-325 (1804).

Lælia sinensis, Walk., Cat. Lep. Het., iv, p. 829 (1855); Butl., Ill. Typ. Lep. Het., iii, pl. xliii, fig. 8 (1879); Fixs., Rom. sur Lép., iii, p. 342 (1887).

Leucoma brevicornis, Walk., *op. cit.*, vii, p. 1729 (1856).

Lælia sangaica, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 92 (1877).

Lælia canosa, Leech, Proc. Zool. Soc. Lond., 1888, p. 621.

There were several specimens (both sexes) from Yokohama in Pryer's collection. I took a male at Ningpo in April, another was taken by a native in July, and one at Gensan, also in July. Four males were received from Chang-yang. Three of the examples from the last locality are silky white, one of them almost immaculate, I propose the name *candida* for this form; the fourth is identical with the type of *sangaica*, Moore. The Ningpo specimens are darker and have larger black spots than those from Japan, which latter, together with the Gensan example, agree very well with the European type.

Distribution. EUROPE.—AMURLAND; JAPAN; CENTRAL and NORTHERN CHINA; COREA.

416. *Lælia gigantea*.

Lælia gigantea, Butl., Cist. Ent., iii, p. 117 (1885).

One male specimen and five females from Oiwake in Pryer's collection.

Probably only a large form of *L. canosa*.

Habitat. JAPAN.

Genus PANTANA.

Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 443 (1892).

417. *Pantana sinica*.

Pantana sinica, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 92 (1877).

I have a typical male taken by myself at Foochau in April and an example of the same sex from Chang-yang, taken in July. The last agrees with the Foochau specimen so far as regards the primaries, but the secondaries are pure white with a broad outer marginal band extending from costa almost to anal angle.

Habitat. EASTERN and CENTRAL CHINA.

418. *Pantana nigrolimbata*, sp. n.

Male. Head and palpi yellowish-orange; thorax and abdomen fuscous, the latter yellowish beneath. Primaries white and suffused with blackish on basal area and dusted with the same colour beyond;

outer area with a blackish band which is broadest on costa and interrupted by a spur of the ground colour below vein 2; a small black spot at lower angle of cell and two rather larger ones below cell. Secondaries white dusted with blackish on basal area; outer marginal band black, extending from costa to vein 3.

Female. Primaries ochreous white with black spots as in the male, but without blackish bands on outer margin; secondaries sordid white, without marking.

Expanse 48-54 millim.

Ten male specimens and three females from Moupin taken in June.

Habitat. WESTERN CHINA.

Allied to *P. terminata*, Walk.

419. *Pantana simplex*, sp. n.

Primaries pale fuscous brown, the venation is pale brown to the outer marginal area; the costa is streaked with pale brown to the end of the cell, where there is a lunulated mark of the same colour; the inner marginal area is pale brown; fringes and costa dark fuscous. Secondaries white. Head and thorax same colour as primaries, palpi golden brown; abdomen paler.

Expanse 34-40 millim.

Nine male specimens from Chia-kou-ho and three from Chia-ting-fu.

Occurs in June.

Habitat. WESTERN CHINA.

In four specimens from Chia-kou-ho the primaries are pale fawn colour very slightly suffused with fuscous.

420. *Pantana pluto*.

Gynæphora pluto, Leech, Entom., xxiii, p. 111 (1890).

Two male specimens from Ichang, one from Moupin and one from the province of Kwei-chow. July.

Habitat. CENTRAL and WESTERN CHINA.

Genus CIFUNA.

Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 446 (1892).

421. *Cifuna locuples*.

Cifuna locuples, Walk., Cat. Lep. Het., v, p. 1173 (1855);
Butl., Ill. Typ. Lep. Het., ii, pl. xxvii, fig. 6 (1878);
Hampson, Fauna Brit. Ind., Moths, i, p. 446 (1892).

Artaxa confusa, Brem., Lep. Ost.-Sib., p. 42, pl. iv, fig. 5
• (1864).

A fine series from Yokohama and Oiwake in Pryer's collection. I have two specimens from Hakodate, one taken in June, and one from Gensan taken in July. The species occurs also at Chang-yang and Chia-ting-fu in June and July.

One example from Oiwake is referable to var. *confusa*, Brem., which is darker than the type.

Distribution. KHÁSIS; NÁGAS (*Hampson*); AMURLAND; JAPAN; YESSO; CENTRAL and WESTERN CHINA; COREA.

422. *Cifuna eurydice*.

Porthetria eurydice, Butl., Cist. Ent., iii, p. 118 ♂ (1885);
Leech, Proc. Zool. Soc. Lond., 1888, p. 632.

Cifuna eurydice, Kirby, Cat. Lep. Het., i, p. 459 (1892).

Dasychira amata, Staud., Rom. sur Léop., iii, p. 206, pl.
xii, fig. 2 ♀ (1887).

One example of each sex from Ohoyama in Pryer's collection.

Graesar (Berl. Ent. Zeit., 1888, p. 123) states that the larva feeds in June on *Vitis amurensis*.

C. jankowskii, Oberth., seems to be a very close ally of *C. eurydice*.

Staudinger (Rom. sur Léop., vi, p. 305) states that he has a female "*Amata*" from Japan which agrees well with his Amurland specimens, and he adds that I do not record this species from Japan. Reference to my former paper (*l. c.*) will show that "*D.*" *amata*, Staud., was merged by me as the female of *C. eurydice*, with which his subsequent description of the male agrees.

Distribution. AMURLAND; JAPAN.

Genus DASYCHIRA.

Steph.; Hampson, Fauna Brit. Ind., Moths, i, p. 447
(1892).

423. *Dasychira argentata*.

Dasychira argentata, Butl., Trans. Ent. Soc. Lond., 1881,
p. 12.

Calliteara abietis, Leech, Proc. Zool. Soc. Lond., 1888,
p. 631.

Calliteara argentata, Kirby, Cat. Lep. Het., i, p. 470 (1892).

Four male specimens and one female from Nikko in Pryer's collection.

This appears to be the Japanese representative of the European *C. abietis*, from which species it differs principally in its much darker coloration.

Habitat. JAPAN.

424. *Dasychira pudibunda*.

Bombyx pudibunda, Linn., Syst. Nat., x, p. 303.

Dasychira pudibunda, Kirby, Cat. Lep. Het., i, p. 482 (1892).

Dasychira pudibunda, ab. *concolor*, Staud., Cat. Lep. Eur., p. 29 (1861).

Two male specimens that I took at Ningpo in April agree very well with var. *concolor*, Staud., and a female taken by a native at Hakodate is almost exactly identical with typical European examples, and has none of the characteristics of *pryeri*, Butl., or *pudica*, Staud.

Distribution. EUROPE.—YESSO; NORTH-EAST CHINA; ? AMURLAND.

425. *Dasychira grotei*.

Dasychira grotei, Moore, Cat. Lep. E.I.C., p. 338 (1859).

Dasychira horsfieldi, Hampson, Fauna Brit. Ind., Moths, i, p. 448 (1892).

One female specimen taken at Moupin in July.

Distribution. INDIA; WESTERN CHINA.

426. *Dasychira pseudabietis*.

Calliteara pseudabietis, Butl., Cist. Ent., iii, p. 118 ♂ (1885).

Calliteara abietis, Leech, Proc. Zool. Soc. Lond., 1888, p. 631.

Dasychira pryeri, Butl., Cist. Ent., iii, p. 1190 (1885).

Dasychira pudica, Staud., Rom. sur Lép., iii, p. 204 (1887).

Dasychira modesta, Kirby, Cat. Lep. Het., i, p. 483 (1892).

? *Orgyia punctatella*, Motsch., Etud. Entom., 1860, p. 32.

Two male specimens and three females from Yokohama and Nikko in Pryer's collection. I obtained a male

example at Gensan in June, and my native collector took one in the island of Kiushiu.

Butler, *l. c.*, described the male of this species as *pseudabietis* and the female as *pryeri*. Staudinger subsequently redescribed the species, of which he had both sexes, as *pudica*, which name, being pre-occupied, Kirby altered to *modesta*.

The differences between *D. pseudabietis* and *D. pudibunda* as mentioned by Staudinger (Rom. sur Lép., iii, p. 204) appear to be constant so far as my Japanese and Corean specimens are concerned.

Distribution. AMURLAND; JAPAN; KIUSHIU; COREA.

427. *Dasychira lunulata*.

Dasychira lunulata, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 403 (1877); Ill. Typ. Lep. Het., ii, pl. xxiv, fig. 8 ♂ (1878).

Dasychira acronycta, Oberth., Etud. d'Entom., v, p. 35, pl. v, fig. 7 ♂ (1881).

Dasychira solitaria, Staud., Rom. sur Lép., iii, pl. xii, fig. 1 ♀ (1887).

Occurs in Japan at Yokohama and Oiwake.

The male specimens agree perfectly with the type in the National Museum and also with Oberthür's excellent figure of *acronycta* ♂. The females agree very well with Staudinger's figure of *solitaria*. Dr. Staudinger objects to *acronycta*, Oberth. being considered synonymous with *lunulata*, Butl., because the figure of the latter, which it may be remarked is a very bad one, does not agree with that of the former. He also says that as I did not mention Amurland specimens, I probably had not seen examples from the region; this is true, but then the figures of *acronycta* and *solitaria* are both from Amurland specimens and exactly represent the sexes of *lunulata* from Japan, so that it was not possible to consider the Amurland insect specifically distinct from the Japanese.

Distribution. AMURLAND; ASKOLD; JAPAN.

428. *Dasychira bhana*.

Dasychira bhana, Moore, Proc. Zool. Soc. Lond., 1865, p. 804.

Dasychira tenebrosa, Walk., Cat. Lep. Het., xxxii, p. 361 (1865).

Mardaria feminula, Hampson, Ill. Typ. Lep. Het., viii, p. 58, pl. cxli, figs. 1, 7 (1891).

I have specimens from Moupin, Ta-chien-lu, Pu-tsu-fong, Chia-kou-ho, Wa-shan and Omei-shan. The examples from the first two localities are paler than the others which are of the typical and *tenebrosa* forms.

One male specimen from the province of Kwei-chow, which seems to be referable to this species, has the ground colour greyish and the dark markings are confluent, forming clouds and patches.

Distribution. SIKHIM; NILGIRI PLATEAU (*Hampson*); WESTERN CHINA.

Genus MARDARA.

Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 454 (1892).

429. *Mardara catocaloides*, sp. n.

Primaries fuscous brown, discal area tinged with yellowish, traversed by black or blackish, basal, ante and post medial, submarginal and marginal, wavy lines; the antemedial line is preceded by a pale, angulated, line commencing in a small greenish patch on costa; there is a similar patch about the middle of costa and another at the costal extremity of post medial line; the discal cell is closed by a reniform mark outlined in black; outer marginal area tinged with green; fringes orange and suffused and marked with fuscous. Secondaries orange, broadly bordered with black on costa and outer margin; there is a long cuneiform streak of the same colour from base to black outer marginal border, and a diffuse one on abdominal area; a broad sinuous black mark at outer end of cell, interrupting the cuneiform streak; fringes orange. Under surface orange; all the wings have the costa and outer margin bordered with blackish; discal mark black and conspicuous; abdominal half of secondaries suffused with fuscous, and there is an interrupted wavy blackish line before the outer marginal border.

Expanse 46 millim.

One male specimen from Moupin, taken in June; and one from Ta-chien-lu, captured in July.

Habitat. WESTERN CHINA.

Genus NUMENES.

Walker, Cat. Lep. Het., iii, p. 662 (1855).

430. *Numenes disparilis*.

Numenes disparilis, Staud., Rom. sur Lép., iii, p. 200, pl. xi, figs. 2 a, b (1887).

Numenes disparilis, var. *separata*, Leech, Entom., xxiii, p. 112 (1890).

Pseudomesa disparilis, Kirby, Cat. Lep. Het., i, p. 456 (1892).

Lymantria albofascia, Leech, Proc. Zool. Soc. Lond., 1888, p. 629, pl. xxxi, fig. 8.

A form of the male, which I have previously described as a distinct species under the name *albofascia*, is without any white on the secondaries, and the band on primaries is broader than in male *disparilis*. The type of this form was from Ohoyama, and I have received a similar specimen from Moupin. As all the forms of *disparilis* have a fascia on primaries, perhaps it would be well to substitute *simplex* for *albofascia*.

The type and cotype of var. *separata* ♂ are from Changyang; one of these has a white spot on the costa of primaries near the base, and both have a yellowish white streak from the centre of the fascia to apex of the wing. One female from Chia-kou-ho has the primaries of the type-form, but the secondaries are marked as in *separata*, with three additional black spots on the middle of the outer margin. The female type of var. *separata* is from Changyang, and I have other examples of the same sex of this form from Moupin and Kiukiang; there were three examples in Pryer's collection, probably from Ohoyama.

All these are larger than the female figured by Staudinger. None of my specimens of either sex have the venation yellow, as it is represented to be in the figure of the male and female of *disparilis*.

Distribution. AMURLAND; JAPAN; CENTRAL and WESTERN CHINA.

Genus LOCHARNA.

Moore, Lep. Atk., p. 53 (1879).

431. *Locharna strigipennis*.

Locharna strigipennis, Moore, Lep. Atk., p. 53, pl. iii, fig. 11 (1879).

Pida strigipennis, Hampson, Fauna Brit. Ind., Moths, i, p. 457 (1892).

One female specimen from Chang-yang, taken in July, and one from Ichang, taken in August.

So far as I am aware, only the female sex has been described or figured. I have an example from Omei-shan which I believe to be the male of this species, and of which I append the following description :—

Primaries whitish, heavily striated with blackish over the whole area; fringes black marked with whitish at ends of the nervules. Secondaries fuliginous black, fringes yellow. Under surface fuliginous black; the costa of primaries, and the costal area and the fringes of secondaries yellowish; the neurulation is also yellowish towards the outer margin on all the wings. Head blackish, palpi yellowish; thorax dark greyish with some yellowish brown hairs on the front segment; abdomen fuliginous black above, yellowish beneath. Expanse 46 millim.

Distribution. SIKHIM; KHÁSIS; CENTRAL and WESTERN CHINA.

Genus DAPLASA.

Moore, Lep. Atk., p. 51 (1879).

432. *Daplasa irrorata*.

Daplasa irrorata, Moore, Lep. Atk., p. 52, pl. ii, fig. 17 (1879); Hampson, Fauna Brit. Ind., Moths, i, p. 458 (1892).

Two male specimens from Omei-shan, taken in June or July.

Distribution. SIKHIM; WESTERN CHINA.

Genus LYMANTRIA.

Hübner; Hampson, Fauna Brit. Ind., Moths, i, p. 459 (1892).

433. *Lymantria mathura*.

Lymantria mathura, Moore, Proc. Zool. Soc. Lond., 1865, p. 806; Hampson, Fauna, Brit. Ind. Moths, i, p. 464 (1892).

Lymantria aurore, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 403 (1878); Ill. Typ. Lep. Het., ii, pl. xxiv, fig. 5 (1878).

Lymantria aurora, var. *fusca*, Leech, Proc. Zool. Soc. Lond., 1888, p. 629.

There were specimens from Oiwake, Yokohama, Yesso, Loochoo, and the Kurile Isles, in Pryer's collection. I obtained the species at Nagahama, Tsuruga, Sendai, and Gensan. Seven female examples were received from Omei-shan, where they were captured in June and July.

The male varies in depth of colour, the darkest, of which I have three specimens from Nagahama and one from Pryer's collection, I have named var. *fusca*.

Dr. Staudinger (Rom. sur Léop., vi, p. 312) states that in the Atkinson collection there was a row of *grandis*, all females, and a row of *mathura*, all males, and that as the latter closely resembled *aurora* ♂ he concluded that they represented the sexes of the same species. He is further of opinion that the specimen Butler figures (Ill. v, pl. xci, fig. 1) as *grandis* ♂, which nearly resembles the female of that species in appearance, is probably the male of another species, perhaps *carneola*, Moore.

Hampson (Moths Brit. Ind., i, p. 465) describes the male of *grandis* (= *maculosa*, Walk.) as having white primaries, and states that the female differs from *mathura* in the frons being blackish and the 2nd joint of palpus having a black spot. He gives Ceylon as the habitat of the species.

Possibly the females referred to by Staudinger as *grandis* are really *mathura*. In a series of eight examples of *grandis* in the late Otto Möller's Darjeeling collection only one is of the male sex, and this has all the wings white, the primaries have the markings of the female faintly indicated, the bands being reduced to lunules. There are no specimens representing male *aurora* in Möller's collection.

Distribution. NORTH - WEST HIMALAYAS; SIKHIM (*Hampson*); AMURLAND; JAPAN; YESSO; KURILE ISLES; LOOCHOO; COREA; NORTHERN and WESTERN CHINA.

434. *Lymantria beatrix*.

Bombyx beatrix, Stoll., Cram. Suppl. Pap. Exot., v, p. 173, pl. xl, fig. 2 (1790).

Lymantria marginata, Walk., Cat. Lep. Het., iv, p. 877 (1855);
Butl., Ill. Typ. Lep. Het., v, pl. xc, fig. 12 (1892).

Lymantria nigra, Moore, Proc. Zool. Soc. Lond., 1888, p. 399.

Lymantria beatrix, Hampson, Fauna Brit. Ind., Moths, i, p. 463 (1892).

Six female specimens from Chang-yang and Moupin, taken in July, and one male example from Moupin.

Distribution. Throughout INDIA and CEYLON; JAVA (*Hampson*); CENTRAL and WESTERN CHINA.

435. *Lymantria monacha*.

Bombyx monacha, Linn., Syst. Nat., x, p. 501 (1758);

Hübner, Schmett., ii, fig. 74 (1800 ?).

Lymantria monacha, Kirby, Cat. Lep. Het., i, p. 477 (1892).

A series of specimens from Oiwake and Yesso in Pryer's collection; these are rather larger than European examples, but are otherwise quite typical.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO.

436. *Lymantria dispar*.

Bombyx dispar, Linn., x, p. 501 (1758).

Porthetria dispar, Kirby, Cat. Lep. Het., i, p. 475 (1892).

Liparis dispar, var. *japonica*, Motsch., Etud. Ent., 1860, p. 31.

Porthetria umbrosa, Butl., Trans. Ent. Soc. Lond., 1881, p. 10.

Porthetria hadina, Butl., l. c., p. 11.

Lymantria dispar, Leech, Proc. Zool. Soc. Lond., 1888, p. 630.

Occurs in Japan at Yokohama, Fushiki, Nagahama, Tokio, and Hakodate. Specimens were received from Kiukiang and the province of Kwei-chow, and I obtained the species at Gensan. As I remarked in my previous paper, the colour of Eastern Asian *L. dispar* ranges, in the male, from whitish or pale whity-brown through greyish-brown up to a dark fuliginous, and in all forms the transverse lines and shades, as also the discal spots of primaries, may be either well defined, or more or less obliterated. The female varies from white to pale fuscous, and the markings are subject to modification as in the male. In size the specimens range from 37 millim. (♂) to 114 millim. (♀).

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; COREA; NORTH, CENTRAL, and WESTERN CHINA.

437. *Lymantria fumida*.

Lymantria fumida, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 402 (1877); Ill. Typ. Lep. Het., ii, pl. xxiv, fig. 4, ♀ (1878).

Porthetria fumida, ♂, Butl., Trans. Ent. Soc. Lond., 1881, p. 11.

I have a long series (8 ♂, 7 ♀) from Yokohama.

Habitat. JAPAN.

438. *Lymantria sinica*.

Lymantria sinica, Moore, Proc. Zool. Soc. Lond., 1879, p. 403.

Porthetria sinica, Kirby, Cat. Lep. Het., i, p. 476 (1892).

Moore described this species from North China.

439. *Lymantria lutescens*.

Porthetria lutescens, Butl., Trans. Ent. Soc. Lond., 1881, p. 11.

Occurs at Tokio, Ohoyama, and Oiwake; there were two male specimens from the latter locality in Pryer's collection.

Habitat. JAPAN.

440. *Lymantria obsoleta*.

Lymantria obsoleta, Walk., Cat. Lep. Het., iv, p. 880 (1855).

Lymantria albolunulata, Moore, Proc. Zool. Soc. Lond., 1879, p. 403.

One male specimen from Moupin, and one from Omeishan, taken in June. The example from the last named locality is smaller than that from Moupin, and the white mark at inner angle is not so well defined.

Distribution. NORTH-WESTERN HIMALAYAS (*Hampson*); WESTERN CHINA.

Genus OCNERIA.

Hübner, Verz., bek. Schmett., p. 158 (1822 ?).

441. *Ocnecia furva*.

Ocnecia furva, Leech, Proc. Zool. Soc. Lond., 1888, p. 631, pl. xxxi, fig. 10.

I have series of this species from Oiwake and from Chang-yang and Ichang. The Chinese specimens only differ from the Japanese examples in the absence of pale scales, and the less pronounced character of the black spots on primaries.

Distribution. JAPAN; CENTRAL CHINA.

Genus GAZALINA.

Walker, Cat. Lep. Het., xxxii, p. 398 (1865).

442. *Gazalina chrysolopha*.

Liparis chrysolopha, Koll., Hügel's Kashmir, iv, p. 470 (1848).

Dasychira antica, Walk., Cat. Lep. Het., iv, p. 867 (1855).

Gazalina antica, Butl., Ill. Typ. Lep. Het., v, p. 49, pl. lxxxix, fig. 4 (1881).

Gazalina chrysolopha, Hampson, Fauna Brit. Ind., Moths, i, p. 469 (1892).

Five male specimens and three females from Chang-yang, Wa-shan, Pu-tsu-fong, and the provinces of Kweichow, all taken in July and August.

Distribution. NORTH-WEST HIMALAYAS; SIKHIM (*Hampson*); CENTRAL and WESTERN CHINA.

Genus EUPROCTIS.

Hübner, Hampson, Fauna Brit. Ind., Moths, i, p. 470 (1892).

443. *Euproctis bimaculata*.

Euproctis bimaculata, Walk., Cat. Lep. Het., iv, p. 836 (1855); Moore, Lep. Ceylon, p. 89, pl. cxii, figs. 6, 6B (1883); Hampson, Fauna Brit. Ind., Moths, i, p. 472 (1892).

Euproctis lutescens, Walk., l. c., p. 387; Butl., Ill. Typ. Lep. Het., v, p. 51, pl. lxxxix, fig. 10 (1881).

Euproctis immaculata, Moore, Trans. Ent. Soc. Lond., 1884, p. 358.

Specimens were received from Ship-y-shan, Omei-shan,

Wa-shan, and Chia-kou-ho, and a series comprising five males and six females, bred in May at Chung-King, from larvæ obtained in that locality. All the intergrades between the white type and var. *lutescens* are represented. In one male from Chia-kou-ho the black spot on primaries is almost absent, and approaches var. *immaculata*, and one male from Chung-King has an obscure fuscous post-medial band similar to that of *Chærotricha immaculata*, Butl., which Hampson considers to be a form of *Euproctis plana*, Walk.

Cramer (Pap. Exot., iv, cccxcviii, fig. E.) represents a specimen under the name *albina*? from Japan which may possibly be a form of the species under consideration. The same remark applies to *helladia*, Cram., l. c., fig. H.

Distribution. PHILIPPINES; SIKHIM; CANARA; CEYLON; BURMA; MERGUI; ANDAMANS; JAVA (*Hampson*); CENTRAL and WESTERN CHINA.

444. *Euproctis inconspicua*, sp. n.

Head, thorax, and abdomen ochreous; anal tuft golden brown.

Primaries ochreous, with a faint blackish dot at the outer extremity of the cell, and an ill defined transverse patch of golden brown scales from about middle of inner margin to median nervure. Secondaries white with some ochreous hairs on abdominal margin. Under surface sordid white, without markings.

•Expanse 46 millim.

One female specimen taken in July at Chia-ting-fu, and one from Omei-shan, captured in the same month.

Habitat. WESTERN CHINA.

445. *Euproctis staudingeri*.

Chærotricha staudingeri, Leech, Proc. Zool. Soc. Lond., 1888, p. 624, pl. xxxi, fig. 6.

Nygmia staudingeri, Kirby, Cat. Lep. Het., i, p. 447, 1892.

Eight males and the same number of females from Yokohama.

Habitat. JAPAN.

446. *Euproctis nipponis*.

Chærotricha nipponis, Butl., Trans. Ent. Soc. Lond., 1881, p. 9 ♂; Leech, Proc. Zool. Soc. Lond., 1888, p. 624.

Nygmia niphonis, Kirby, Cat. Lep. Het., i, p. 447 (1892).

Chorotricha squamosa, Butl., l. c. ♀.

Porthesia raddei, Staud., Rom. sur Lép., iii, p. 207, pl. xvii, fig. 3 (1887).

Occurs at Yokohama, Oiwake, Tokio, Yesso, Gensan. In the figure of *raddei*, Staud. the base and outer area of primaries are rather more yellow than in Japanese *niphonis*. Staudinger suggests that, as Fixsen's Korean specimens exhibit differences, they might be known as var. *coreana*. I do not find in Staudinger's remarks (Rom. sur Lép., vi, p. 311) any reference to the synonymy or note of this species as given by me in my former paper.

Distribution. AMURLAND; JAPAN; YESSO; COREA; NORTHERN CHINA.

447. *Euproctis divisa*.

Euproctis divisa, Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 471 (1892).

Two male specimens from Omei-shan, one example of each sex from Moupin, two males and a female from Wa-shan. June and July.

In all the Chinese male specimens the prothorax is decidedly fulvous.

Distribution. SIKHIM; NÁGAS (*Hampson*); WESTERN CHINA.

448. *Euproctis chrysorrhæa*.

Bombyx chrysorrhæa, Linn., Syst. Nat., i, p. 502 (1758); Hübn., Bomb., figs. 67, 248, 249 (1800?).

Porthesia chrysorrhæa, Leech, Proc. Zool. Soc. Lond., 1888, p. 622.

Euproctis chrysorrhæa, Kirby, Cat. Lep. Het., i, p. 442 (1892).

One rather worn female specimen taken at Nagahama in July appears to be referable to this species.

Distribution. EUROPE; JAPAN.

449. *Euproctis montis*.

Artaxa montis, Leech, Entom., xxiii, p. 111 (1890).

One male (the type) from Chang-yang, and an example of each sex from Chia-kou-ho.

The primaries of the female are rather paler in colour than those of the male.

Habitat. CENTRAL and WESTERN CHINA.

450. *Euproctis piperita*.

Leucoma subflava, var. *piperita*, Oberth., Etud. d'Entom., v, p. 35 (1880).

Porthesia snelleni, Staud., Rom. sur Lép., iii, p. 207, pl. xii, fig. 3 (1887).

There were two specimens from Oiwake in Pryer's collection, and I have received a long series from Ichang, Chang-yang, Omei-shan, and Chow-pin-sa. Occurs from May to July.

There is a good deal of variation in the amount of the dark diffusion of primaries, and in the submarginal spots; these last are not so conspicuous in any of my specimens as they are represented in Staudinger's figure of *P. snelleni*.

Distribution. AMURLAND; ASKOLD; JAPAN; CENTRAL and WESTERN CHINA.

451. *Euproctis intensa*.

Artaxa intensa, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 402 (1877); Ill. Typ. Lep. Het., ii, pl. xxiii, fig. 12 (1878).

A fine series from Yokohama and Oiwake in Pryer's collection. I obtained the species at Gensan in July, and my native collector met with it at Nikko. A long series was received from Moupin, also specimens from Ichang, Chang-yang, Chia-kou-ho, and the province of Kwei-chow. June and July.

The Japanese specimens are deeper in colour, especially on secondaries, than the Chinese examples, and the central fascia is more clearly defined in the former than in the latter. Some specimens in both sets are without the sub-apical black spot, and in others both spots are absent.

Distribution. JAPAN; CENTRAL and WESTERN CHINA; COREA.

452. *Euproctis straminea*, sp. n.

Head and thorax pale yellow, face whitish, palpi fuscous; abdomen pale fuscous, anal tuft white merging into orange in the male and brown in the female.

Primaries lemon-yellow with a fuscous central band, interrupted by the venation, and bifurcated above median nervure, but not extending to the costa; there are no apical or submarginal spots. Secondaries silky white. Under surface white; the primaries have an interrupted fuscous subcostal streak, and a fuscous mark on vein 3.

Expanse ♂ 33-40 millim., ♀ 42-48 millim.

Two male specimens from Chia-kou-ho, one female from Omei-shan, and one from Ichang; these were all taken in July.

The smaller male is without fuscous marking on the under surface of primaries.

Habitat. WESTERN and CENTRAL CHINA.

Allied to *E. intensa*, Butl.

453. *Euproctis unipuncta*, sp. n.

Primaries pale yellowish, with indications of a fuscous median band, only distinct towards inner margin; subapical spot black. Secondaries white. Under surface white. Abdomen tinged with fuscous; anal tuft orange in male, fuscous in female.

Expanse ♂ 30-33 millim., ♀ 44-46 millim.

Two male specimens and two females from Wa-shan, and the same number of examples of each sex from Chia-kou-ho. June and July.

Habitat. WESTERN CHINA.

454. *Euproctis plana*.

Euproctis plana, Walk., Cat. Lep. Het., vii, p. 1731 (1856); Hampson, Fauna Brit. Ind., Moths, i, p. 479 (1892).

Chaerotracha plana, Butl., Ill. Typ. Lep. Het., v, pl. lxxxix, fig. 13 (1881).

Adullia plana, Swinhoe, Cat. Lep. Het., Oxford, p. 185 (1892).

Nygmia plana, Kirby, Cat. Lep. Het., i, p. 447 (1892).

Euproctis mülleri, Snell., Tijds. v. Ent., xx, p. 13, pl. i, fig. 5 ♂, 6 ♀ (1877).

One female specimen from Omei-shan and one from the province of Kwei-chow, taken in June or July. These agree with the female figure of *mülleri*, Snell., except that

they have a black discal spot as in the male, and there is no dark suffusion on the under surface of the wings.

Distribution. KÁNGRA ; SIKHIM ; BURMA ; ANDAMANS (*Hampson*) ; WESTERN CHINA.

455. *Euproctis immaculata* ?

Chærotricha immaculata, Butl., Ill. Typ. Lep. Het., v, p. 52, pl. lxxxix, fig. 14 (1881).

Nygmia immaculata, Kirby, Cat. Lep. Het., i, p. 447 (1892).

Euproctis plana, Hampson, Fauna Brit. Ind., Moths, i, p. 479 (1892).

A specimen in Pryer's collection appears to be the male of *E. immaculata*, Butler, which seems to be a species quite distinct from *E. plana*, Walk., with which Hampson has placed it.

Distribution. DARJILING ; JAPAN.

456. *Euproctis flavinata*.

Artaxa flavinata, Walk., Cat. Lep. Het., xxxii, p. 331 (1865).

Euproctis flavinata, Hampson, Fauna Brit. Ind., Moths, i, p. 475 (1892).

Walker described this species from Shanghai ; my collectors did not meet with it in any part of China that they went through.

Distribution. Throughout INDIA ; CEYLON and BURMA ; BORNEO (*Hampson*) ; NORTH CHINA.

457. *Euproctis varians*.

Artaxa varians, Walk., Cat. Lep. Het., iii, p. 796 (1855).

Euproctis varians, Hampson, Fauna Brit. Ind., Moths, i, p. 475 (1892).

Occurs at Chang-yang, Ichang, Ship-y-shan, Moupin, and Chia-kou-ho, in June and July.

Distribution. FORMOSA ; throughout INDIA ; CEYLON and BURMA (*Hampson*) ; CENTRAL and WESTERN CHINA.

458. *Euproctis endoplagia*.

Euproctis endoplagia, Hampson, Journ. Bomb. N. H. Soc., xi, p. 295 (1897).

Primaries pale ochreous yellow, with an ill defined fuscous patch on inner marginal area just beyond the middle. Secondaries paler.

Expanse ♂ 23 millim., ♀ 29 millim.

One male specimen from Ichang and one from Moupin, the latter taken in June and the former in July; one female from Ship-y-shan obtained in September.

Habitat. CENTRAL and WESTERN CHINA.

The fuscous patch is only faintly indicated in the female.

459. *Euproctis pauperata*, sp. n.

Male. Primaries pale buff, with a fuscous blotch on inner area before the middle. Secondaries paler. Undersurface as above in colour, but tinged with blackish on costal area of primaries.

Female. Diaphanous; sordid white, primaries with an ochreous-grey tinge.

Expanse ♂ 31-35 millim., ♀ 40-44 millim.

Two specimens of each sex from Moupin, taken in June.

The fuscous blotch in one example of each sex is well defined, but in the other pair it is much reduced in size in the male, and barely traceable in the female.

Habitat. WESTERN CHINA.

460. *Euproctis recurvata*, sp. n.

Primaries yellow, basal area darker limited by a pale curved line; beyond the middle of the wing there is a curved and recurved, fuscous, transverse band; this is interrupted by the venation and inwardly edged by a pale line. Secondaries paler. Undersurface pale ochreous.

Expanse 26-32 millim.

Three male specimens from Chang-yang, and one from Ningpo.

In the Ningpo specimen, which is the largest, the basal area of primaries does not appear to be darker than the ground colour, and the undersurface of all the wings is deeper in colour than in the Chang-yang examples.

Habitat. NORTHERN and CENTRAL CHINA.

461. *Euproctis bipunctapex*.

Somena bipunctapex, Hampson, Ill. Typ. Lep. Het., viii, p 57, pl. cxi, fig. 13 (1891).

Euproctis bipunctapex, Fauna Brit. Ind., Moths, i, p. 484 (1892).

Arna bipunctapex, Swinhoe, Cat. Lep. Het., Oxford, p. 191 (1892).

Artaxa bipunctapex, Kirby, Cat. Lep. Het., i, p. 453 (1892).

I have several specimens of this species from Ichang, Chang-yang, Ship-y-shan, Moupin, Wa-shan, and the province of Kwei-chow. It occurs in June, July, and August.

Distribution. KÁNGRA; NÁGAS; NILGIRIS; BURMA (*Hampson*); CENTRAL and WESTERN CHINA.

462. *Euproctis scintillans*.

Somena scintillans, Walk., Cat. Lep. Het., vii, p. 1734 (1856); Kirby, Cat. Lep. Het., i, p. 454 (1892).

Artaxa scintillans, Butl., Ill. Typ. Lep. Het., v, p. 90, pl. xc, fig. 1 (1881).

Artaxa limbata, Butl., *l. c.*, p. 53, pl. xc, fig. 3.

Euproctis scintillans, Hampson, Fauna Brit. Ind., Moths, i, p. 483 (1892).

Arna scintillans, Swinhoe, Cat. Lep. Het., Oxford, p. 191 (1892).

Specimens were received from Chang-yang, Moupin, and Omei-shan, taken in June and July. I obtained the species at Ningpó in April, and my native collector obtained it at Gensan in August.

The Gensan and Ningpó examples are of the *limbata* form, *i. e.*, the secondaries are fuscous-brown, with a yellow hind marginal border, but in all the other specimens the whole of the outer half of secondaries is yellow, and the upper spur of ground colour on primaries is absent, whilst the lower one is very short.

Distribution. Throughout INDIA and CEYLON; BURMA; ANDAMANS (*Hampson*); CENTRAL, WESTERN, and NORTH-EASTERN CHINA; COREA.

463. *Euproctis argentata*, sp. n.

Primaries orange-yellow, basal three-fourths powdered with brownish and limited outwardly by an irregular series of brownish spots, which are sprinkled with silvery scales; the series is interrupted between veins 5 and 6, and does not extend beyond vein 7. Secondaries ochreous-white. Undersurface pale ochreous.

Expanse 24 millim.

One male specimen in Pryer's collection, exact locality not indicated.

Habitat. JAPAN.

464. *Euproctis conspersa*.

Artaxa conspersa, Butl., Cist. Ent., iii, p. 117 (1885).

A long series from Yokohama in Pryer's collection.

There are two forms of the male: one of these is of a dark chocolate colour, but the other is of the female coloration, *i.e.*, ochreous or pale yellow; the latter is the typical form.

Habitat. JAPAN.

465. *Euproctis pulverea*.

Artaxa pulverea, Leech, Proc. Zool. Soc. Lond., 1888, p. 623, pl. xxxi, fig. 5.

I obtained two examples of each sex in Satsuma in May, and two males at Nagasaki in June; my collector obtained one male at Gensan, and there were three males and two females from Loochoo in Pryer's collection. A male specimen, also in Pryer's collection but without locality, which I referred to this species in my former paper, I now find to be distinct and have described it as *E. argentata*.

Distribution. JAPAN; KIUSHIU; COREA; LOOCHOO.

466. *Euproctis torasan*.

Artaxa torasan, Holl., Trans. Amer. Ent. Soc., xvi, p. 73 (1889).

Described from Japan, but the description does not seem to apply to any species of *Euproctis* that I have seen from that country.

Habitat. JAPAN.

Genus PORTHESIA.

Steph.; Hampson, Fauna Brit. Ind., Moths, i, p. 484 (1892).

467. *Porthesia similis*.

Phalaena similis, Fuessl., Verz. Schweiz. Ins., p. 35 (1775).

Bombyx auriflua, Hübn., Bomb., figs. 68, 69 (1800).

Bombyx chrysorrhæa, Esp., Schmett., iii, pl. xxxix, figs. 1, 2 (1785).

Porthesia auriflua, Leech, Proc. Zool. Soc. Lond., 1888, p. 622; Hampson, Fauna Brit. Ind., Moths, i, p. 484 (1892).

Leucoma similis, Kirby, Cat. Lep. Het., v, p. 445 (1892).

There were specimens from Yokohama, Oiwake, and Yesso in Pryer's collection. I obtained examples at Fushiki in the month of July, and I have received the species from Gensan, Ship-y-shan, Omei-shan, Chia-kou-ho, and the province of Kwei-chow.

Some of the males have two fuscous spots on the inner margin of primaries; others have a third spot placed on costa immediately over, and almost uniting with, that nearest the base on inner margin; one example has a fourth spot (subapical). Some of the females also have one or both spots on inner margin, but these are not so well defined as in the males.

P. virguncula, Walk., which Hampson (*l.c.*, p. 485) includes as a form of *P. xanthorrhæa*, Koll., is probably only a form of *P. similis*.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; COREA; NORTHERN, CENTRAL, and WESTERN CHINA.

468. *Porthesia marginalis*.

Euproctis marginalis, Walk., Cat. Lep. Het., vii, p. 1731.

Porthesia marginalis, Butl., Ill. Typ. Lep. Het., v, p. 51, pl. lxxxix, fig. 12 (1881).

Porthesia xanthorrhæa,* Hampson, Fauna Brit. Ind., Moths, i, p. 485 (1892).

Two male specimens from Moupin taken in June. These have the pectinations of the antennæ almost black, and agree in other respects with *P. marginalis*, which Hampson considers to be a form of *P. xanthorrhæa*.

Distribution. INDIA; CEYLON; BURMA; JAVA (*Hampson*); WESTERN CHINA.

Genus STILPNOTIA.

Westwood and Humphreys, Brit. Moths, i, p. 90 (1841?).

469. *Stilpnotia salicis*.

Bombyx salicis, Linn., Syst. Nat., i, p. 502 (1758); Hübn., Bomb., fig. 70 (1800?).

Stilpnotia salicis, Kirby, Cat. Lep. Het., p. 433 (1892).

Leucoma salicis, var. *candida*, Staud., Rom. sur Lép., vi, p. 308 (1892).

I have examples of this species from Yesso, Ichang, Kiukiang, Moupin, Wa-shan, Pu-tsu-fong, and the province of Kwei-chow. All these have the wings more densely scaled, thus giving the insects a more silvery appearance; they are referable to var. *candida*, Staud.

Distribution. EUROPE.—AMURLAND; YESSO; CENTRAL, WESTERN, and NORTH-EASTERN CHINA; COREA.

470. *Stilpnotia sericea*.

Stilpnotia sericea, Moore, Lep. Atk., p. 45 (1879).

Caviria sericea, Hampson, Fauna Brit. Ind., Moths, i, p. 490 (1892).

One male specimen from Omei-shan taken in July.

Distribution. SIKHIM; WESTERN CHINA.

471. *Stilpnotia ochripes*.

Stilpnotia ochripes, Moore, Lep. Atk., p. 45 (1879).

Caviria ochripes, Hampson, Fauna Brit. Ind., Moths, i, p. 490 (1892).

One male specimen from Moupin, taken in June.

Staudinger (Rom. sur Lép., vi, p. 309) records *Leucoma ochropoda*, Eversm., from Amurland, and states that it differs from *ochripes*, Moore, in the pectinations of the antennæ being black instead of yellowish-brown.

Distribution. SIKHIM; NÁGA HILLS; MONEIT; BURMA (Hampson); WESTERN CHINA.

Genus LEUCOMA.

Steph.; Hampson, Fauna Brit. Ind., Moths, i, p. 487 (1892).

472. *Leucoma cymbicornis*.

Redoa cymbicornis, Butl., Ill. Typ. Lep. Het., v, p. 48, pl. lxxxix, fig. 2 (1881).

Leucoma subvitrea (part), Leech, Proc. Zool. Soc. Lond., 1888, p. 621.

Larva l-nigrum, Leech, Trans. Ent. Soc. Lond., 1889, p. 127.

Redoa nigricilia, Swinh., Trans. Ent. Soc. Lond., 1891, p. 478.

Four male specimens from Ichang, two from Omei-shan, and one from Pu-tsu-fong, one female from Kiukiang, and one in Pryer's collection; the latter was included in a series under the name *Leucoma subvitrea*, Walk.

The smallest male in my series is from Ichang, and expands 30 millim. The females are each 50 millim. in expanse. One example of the male from Ichang is without the typical black dot on primaries, and the fringes are black at the tips; this is referable to *nigricilia*, Swinh.

Distribution. SIKHIM; BORNEO (*Hampson*); JAPAN; CENTRAL and WESTERN CHINA.

473. *Leucoma moorei*.

Redoa alba, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 92 (1877).

Three male specimens from Ichang, one female from Chang-yang; five males from Moupin, two males and a female from Omei-shan, and one example of each sex from Wa-shan. Occurs from May to August.

This species is similar to *L. cymbicornis*, Butl., but the wings are shorter and the outer margins rounder. The shafts of the antennæ are black, except at the base.

The name *alba* being already occupied in *Leucoma*, I have changed it to *moorei* for this species.

Habitat. CENTRAL, EASTERN, and WESTERN CHINA.

474. *Leucoma alba*.

Aroa alba, Brem., Lep. Ost-Sib., p. 41, pl. iii, fig. 18 (1864).

Redoa sinensis, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 92 (1877).

I obtained both sexes of this species at Fusan and Gensan, and have received male specimens from Ichang and Chang-yang. Occurs in June and July. The black dot at end of the cell of primaries is generally minute, but sometimes it is entirely absent. In Moore's types, which

are from Shanghai, the spot is only faintly indicated in the male.

The ochraceous spot referred to by Bremer in his description of *alba* is not present in any of my examples.

Distribution. CENTRAL and EASTERN CHINA; COREA; AMURLAND.

475. *Leucoma diaphana*.

Redoa diaphana, Moore, Lep. Atk., i, p. 46 (1879).

Leucoma diaphana, Hampson, Fauna Brit. Ind., Moths, i, p. 488 (1892).

One male specimen from Omei-shan and two from Chang-yang, taken in June.

Distribution. SIKHIM; BERNARDMYO: BURMA (*Hampson*); CENTRAL and WESTERN CHINA.

476. *Leucoma subvitrea*.

Leucoma subvitrea, Walk., Cat. Lep. Het., xxxii, p. 344 (1865).

Kanchia subvitrea, Moore, Lep. Ceyl., ii, p. 93, pl. cxiii, fig. 5 (1882).

I have examples from Moupin, Omei-shan, and the province of Kwei-chow. The species occurs in June and July.

I seem to have wrongly identified the specimens referred to *L. subvitrea* in my former paper.

Distribution. HONG-KONG; BENGAL; NILGIRIS; CEYLON (*Hampson*); WESTERN CHINA.

Genus ARCTORNIS.

Germar, Syst. Gloss. Prodr., p. 18 (1810).

477. *Arctornis auripes*.

Leucoma auripes, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 402 (1877); Ill. Typ. Lep. Het., ii, p. 9, pl. xxiv, fig. 1 (1878); Leech, Proc. Zool. Soc. Lond., 1888, p. 622.

Arctornis auripes, Kirby, Cat. Lep. Het., i, p. 432 (1892).

Leucoma denudata, Walk.; Swinhoe, Cat. Lep. Het., Oxford, p. 202 (1892).

Specimens from Yokohama and Yesso were in Pryer's collection. I obtained the species in June at Gensan, where it was flying commonly among fir-trees in the day-time. One male example was received from Omei-shan, taken by a native collector in June or July; this is slightly suffused with fuscous on primaries and apical area of secondaries, and the costa is distinctly black.

Distribution. JAPAN; YESSO; WESTERN CHINA; COREA.

478. *Arctornis l-nigrum*.

Bombyx l-nigrum, Muell., Faun. Fridr., p. 40 (1764).

Bombyx v-nigrum, Fabr., Syst. Ent., p. 577 (1775).

Larix l-nigrum, Leech, Proc. Zool. Soc. Lond., 1888, p. 622 (part).

Arctornis l-nigrum, Kirby, Cat. Lep. Het., i, p. 432 (1892).

One typical female specimen in Pryer's collection.

Distribution. EUROPE.—AMURLAND; JAPAN; COREA.

Family HYPSIDÆ.

Genus HYPsA.

Hübner; Hampson, Fauna Brit. Ind., Moths, i, p. 498 (1892).

479. *Hypsa marmorea*.

Hypsa marmorea, Walk., Cat. Lep. Het., vii, p. 1674 (1856); Butl., Ill. Typ. Lep. Het., v, p. 43, pl. lxxxvii, figs. 10, 11 (1881); Hampson, Fauna Brit. Ind., Moths, i, p. 498 (1892).

Neochera marmorea, Kirby, Cat. Lep. Het., i, p. 390 (1892).

One female specimen from the province of Kwei-chow, taken in June or July.

Distribution. Throughout N.E. INDIA and BURMA; JAVA (*Hampson*); WESTERN CHINA.

480. *Hypsa clavata*.

Hypsa clavata, Butl., Trans. Ent. Soc. Lond., 1875, p. 317; Hampson, Fauna Brit. Ind., Moths, i, p. 500 (1892).

Not uncommon at Chang-yang in June, July, and August. It also occurs at Ichang, Moupin, Omei-shan,

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Wa-shan, Ni-tou, Chia-ting-fu, Chia-kou-ho, and in the province of Kwei-chow.

Chinese specimens have most of the veins of primaries white; there is an extra postmedial spot on secondaries, above anal angle, and the first spot of this series is often double.

Distribution. HONG-KONG; CACHAR; SYLHET (*Hampson*); CENTRAL and WESTERN CHINA.

481. *Hypsa tortuosa*.

Neochera tortuosa, Moore, Proc. Zool. Soc., 1872, p. 570, pl. xxxiii, fig. 2.

Hypsa tortuosa, Hampson, Fauna Brit. Ind., Moths, i, p. 501 (1892); Kirby, Cat. Lep. Het., i, p. 389 (1892).

Two specimens taken at Moupin in June; these agree with an example from Kulu sent to me by Captain Young.

Distribution. SIKHIM (*Hampson*); KULU; WESTERN CHINA.

482. *Hypsa paliura*.

Hypsa paliura, Swinhoe, Ann. and Mag. Nat. Hist., (6) xii, p. 214 (1892).

Described from China, probably from some southern locality.

Genus DIGAMA.

Moore, Cat. Lep., E. I. Co., p. 297 (1859).

483. *Digama abietis*.

Digama abietis, Leech, Trans. Ent. Soc. Lond., 1889, p. 126, pl. ix, fig. 5.

I found this species commonly in the Snowy Valley, Ningpo, in April 1886. It rests on the trunks of fir trees, but it is difficult to capture, as it is quickly alarmed and flies wildly from tree to tree. One male specimen has been received from Kiukiang.

Distribution. NORTHERN and CENTRAL CHINA.

Family ARCTIIDÆ.

Subfamily ARCTIINÆ.

Genus SPILOSOMA.

Steph. ; Hampson, Fauna Brit. Ind., Moths, p. 3 (1894).

484. *Spilosoma lubricipeda*.

Bombyx lubricipeda, Linn., Syst. Nat., i, p. 506 (1758).

Spilarctia lutea, Kirby, Cat. Lep. Het., i, p. 229 (1892).

Spilosoma lubricipeda, Hampson, Fauna Brit. Ind., Moths, ii, p. 3 (1894).

I obtained specimens in July at Gensan, and have received one from Chia-kou-ho.

Distribution. EUROPE.—AMURLAND ; COREA ; WESTERN CHINA.

485. *Spilosoma seriatopunctata*.

Arctia seriatopunctata, Motsch., Etud. Ent., ix, p. 32 (1860).

Spilarctia seriatopunctata, Kirby, Cat. Lep. Het., i, p. 230 (1892).

Spilarctia ione, Butl., Cist. Ent., ii, p. 41 (1875); Ill. Typ. Lep. Het., iii, p. 6, pl. xlii, fig. 6 (1879).

Spilarctia rosacea, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 352 (1879).

Spilarctia basilimbata, Butl., Trans. Ent. Soc. Lond., 1881, p. 6.

Spilosoma seriatopunctata, Leech, Proc. Zool. Soc. Lond., 1888, p. 618.

Widely distributed in Japan, but the majority of specimens in my series were taken at Hakodate. The species occurs in June, July, and August, and is an exceedingly variable one ; some of the specimens are very similar to European *S. lubricipeda*, others agree with *rosacea*, or *basilimbata*, Butl., and there are intermediate links between all these forms.

Distribution. JAPAN ; YESSO ; AMURLAND ; COREA.

486. *Spilosoma mandarina*.

Spilosoma mandarina, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 88 (1877).

Spilarctia mandarina, Kirby, Cat. Lep. Het., i, p. 231 (1892).

One male specimen from Wa-shan and one from Pu-tsu-fong, taken in July. Moore's type was from Shanghai.

Probably not specifically distinct from *S. seriatopunctata*.

Habitat. EASTERN and WESTERN CHINA.

487. *Spilosoma bisecta*.

Spilosoma bisecta, Leech, Proc. Zool. Soc. Lond., 1888, p. 618, pl. xxxi, fig. 3.

I took one male specimen at Hong-Kong in March, and one at Nagasaki in May. My collectors obtained two female examples at Moupin, and two others at Omei-shan, all taken in June.

In the female the terminal segments of the abdomen are scarlet and not buff as in the male; the secondaries have larger black spots towards anal angle and an additional one just above vein 5, and in two specimens there is a black spot towards costa.

Staudinger (Rom. sur Léop., vi, p. 287) says that he agrees with Snellen in considering *bisecta* to be a form of *S. seriatopunctata*. I am at a loss to understand how any one having made himself acquainted with the differential characters referred to in my description of *S. bisecta*, viz. the buff colour of primaries, pale buff of secondaries and a conspicuous black transverse line on thorax, could possibly suggest its specific identity with *S. seriatopunctata*. I may add that Dr. Staudinger had a specimen of *S. bisecta* in his possession at the time when I compared my examples with the *S. seriatopunctata* in his collection.

Distribution. KIUSHIU; EASTERN and WESTERN CHINA.

488. *Spilosoma howqua*.

Spilosoma howqua, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 88 (1877).

Moore described this species from Shanghai. It agrees with my *S. bisecta* in having a black mark on the thorax, but not in other respects.

Habitat. EASTERN CHINA.

489. *Spilosoma mollicula*.

Spilarctia mollicula, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 395 (1877); Ill. Typ. Lep. Het., iii, pl. xli, fig. 7 (1879).

Described from Hakodate. Staudinger considers that it is simply a form of *S. seriatopunctata*, Motsch.

Habitat. JAPAN.

490. *Spilosoma subcarnea*.

Spilosoma subcarnea, Walk., Cat. Lep. Het., iii, p. 675 (1855).

Spilarctia subcarnea, Butl., Ill. Typ. Lep. Het., iii, p. 6, pl. xlii, fig. 8 (1879).

Aloa leucothorax, Feld., Wien. ent. Mon., vi, p. 36 (1862).

I have received this species from Chia-kou-ho, Che-tou, and Ichang. There were specimens in Pryer's collection from Loochoo and Yokohama, and I captured the species at Gensan.

Some of the specimens are entirely devoid of spots, whilst other examples have from one to six spots on primaries.

Distribution. NORTH, CENTRAL, and WESTERN CHINA; JAPAN; COREA; LOOCHOO.

491. *Spilosoma bifrons*.

Aloa bifrons, Walk., Cat. Lep. Het., iii, p. 705 (1855).

Spilosoma crubescens, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 89 (1877).

Spilarctia crubescens, Kirby, Cat. Lep. Het., i, p. 231 (1892).

Spilosoma rybakowi, Alph., Rom. sur Lép., ix, p. 171, pl. x, fig. 9 ♂ (1897).

There were three specimens in Pryer's collection, and I have received the species from Moupin and Omei-shan.

Distribution. JAPAN; NORTHERN and WESTERN CHINA.

492. *Spilosoma robustum*, sp. n.

Male. Primaries creamy white, a black spot at upper angle of the cell, one on each side of vein 1, about one third from outer angle, and traces of a black dot towards outer margin and near vein 6.

Secondaries whitish with a black spot at upper angle of the cell and indications of a spot towards anal angle and between veins 2 and 3. Under surface as above.

Head and thorax colour of primaries, a black spot on the tegulae; abdomen orange-crimson above, whitish beneath, with dorsal and lateral series of black spots, terminal segments whitish.

Female. Agrees with the male, but the tegulae are without black spots.

Expanse ♂ 60 millim., ♀ 70 millim.

One example of each sex from Moupin, taken in June.

Habitat. WESTERN CHINA.

493. *Spilosoma punctaria*.

Bombyx punctaria, Cram., Pap. Exot., iv, p. 233, pl. ccxcviii, fig. D. (1782).

Bombyx menthastri, Esp., Schmett., iii, p. 334, pl. lxvi, figs. 6—10 (1786).

Spilosoma lubricipeda, Kirby, Cat. Lep. Het., i, p. 227 (1892).

Arctia punctigera, Motsch., Etudes Ent., ix, p. 31 (1860).

Spilosoma sangaica, Walk., Cat. Lep. Het., xxxi, p. 294 (1864); Butl., Ill. Typ. Lep. Het., iii, p. 5, pl. xlii, fig. 5 (1879).

Spilosoma sangaicum, Hampson, Fauna Brit. Ind., Moths, ii, p. 3 (1894).

Spilosoma roseiventer, Snell., v. Voll. Tjidsk. v. Ent., xi, p. 143 (1863).

Spilosoma dornesii, Oberth., Diagnoses, pl. 6 (1879).

Spilosoma darricisi, Oberth., Etud. d'Ent., v, p. 31, pl. i, fig. 7 (1881).

In Pryer's collection there were specimens from Oiwake and Yokohama. I obtained the species at Gensan in June, and my native collector at Hakodate and Nikko. A nice series was received from Chang-yang, Moupin, Wa-shan, Omei-shan, Chia-kou-ho, and the province of Kwei-chow, June and July.

The specimens vary in the colour of primaries which may be either white or pale buff; some examples are heavily spotted, but others are almost devoid of marking, at the same time there are all gradations between these extremes. The abdomen is sometimes of the normal yellow

colour of typical *menthastræ*, but there are all intermediate tints between this and the vermilion of *punctaria*.

Alphéraky (Rom. sur Lép., ix, p. 127) notes two small male specimens from Guan-Sian in the province of Sé-Tchouen; these he states were taken in August, and agree with certain European examples of *menthastræ*.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; COREA; EASTERN, CENTRAL, and WESTERN CHINA; MURREE.

494. *Spilosoma niveus*.

Dionychopus niveus, Mén., Bull. de l'Acad. Pétr., xvii, p. 218 (1859); Schr. Amur. Reisen, Lep., p. 52, pl. iv, fig. 6 (1859); Leech, Proc. Zool. Soc., 1888, p. 620.

Spilosoma (?) *niveus*, Kirby, Cat. Lep. Het., i, p. 229 (1892).

Occurs at Yokohama, Oiwake, Hakodate, Sendai, Hakone, Gensan, Chang-yang, and Ta-chien-lu. July and August.

The markings of the abdomen are subject to modification, and the black discal spot of secondaries is sometimes absent.

Distribution. JAPAN; YESSO; COREA; AMURLAND; CENTRAL and WESTERN CHINA.

495. *Spilosoma purum*, sp. n.

Head, thorax, and wings white, the latter without markings but with the venation prominent on the upper surface, and the discocellulars on the under surface are black. Abdomen with a dorsal series of somewhat triangular marks and a lateral series of black spots, the area between the series is orange-yellow. Pectus and front of the femora orange-yellow.

Expanse 60 millim.

I have twelve male and four female specimens; they were obtained at Omei-shan, Chia-kou-ho, and in the province of Kwei-chow, where they occurred in July.

Allied to *S. niveus*.

The shape of the dorsal spots on abdomen is subject to modification; in the majority of the specimens they are as described, but in one or two examples they are bar-like. and in one individual, small and almost round.

Habitat. WESTERN CHINA.

496. *Spilosoma lativitta*.

Spilosoma lativitta, Moore, Proc. Zool. Soc. Lond., 1865 p. 809.

Spilarctia lativitta, Kirby, Cat. Lep. Het., ii, p. 232 (1892).

Alphæa biguttata (part), Hampson, Fauna Brit. Ind., Moths, ii, p. 23 (1894).

Three male specimens from Pu-tsu-fong, taken in June or July. These differ from the typical form in the colour of the abdomen, which is bright crimson. The colour of the primaries is rather paler than in Indian examples, and there are no markings about the apex and outer margin. I propose the name *carnea* for this form.

Distribution. SIKHIM; WESTERN CHINA.

497. *Spilosoma soror*, sp. n.

Male. Primaries yellowish-buff with an oblique, dusky, macular band between veins 1, 2, and 5, which attains its greatest width between veins 1 and 2. Secondaries whitish and rather silky, with two black dots towards anal angle, these are often absent. Under surface as above. Thorax colour of primaries, head slightly paler; abdomen crimson with dorsal and lateral rows of black dots, anal segment with white hairs; femora of fore-legs crimson.

Female. The dusky band of primaries has a curved extension to the costa and an additional spot on inner margin; terminal segments of the abdomen white.

Expanse 42 millim.

Two males from Chia-kou-ho, one from Chia-ting-fu, one from Ta-chien-lu, and a female from Che-tou. July.

The blackish dots on secondaries are only present in one example.

Allied to *S. jankowskii*, Oberth., but differs from that species in its deeper colour, in the absence of discal spots on either wing, and of the apical spots on primaries.

Habitat. WESTERN CHINA.

498. *Spilosoma lacteata*.

Spilarctia lacteata, Butl., Ill. Typ. Lep. Het., v, p. 31, pl. lxxxv, fig. 10 (1881).

Spilosoma lacteatum, Hampson, Fauna Brit. Ind., Moths, ii, p. 10 (1894).

One male specimen from Omei-shan, and a female from Ni-tou. July.

Distribution. DHARMSÁLA; SIKHIM (*Hampson*); WESTERN CHINA.

499. *Spilosoma rubidum*.

Dionychopus rubidus, Leech, Entom., xxiii, p. 111 (1890).
Spilosoma rubidus, Kirby, Cat. Lep. Het., i, p. 229 (1892).
Spilosoma leucoptera, Alph., Rom. sur Léop., ix, p. 170, pl. x, fig. 8 ♀ (1897).

Two specimens from Chang-yang, and three from Moupin. July and August.

Alphéraky describes this species from Corea.

The spots on secondaries vary in number, and in some examples there are several spots on primaries.

Distribution. CENTRAL and WESTERN CHINA; COREA.

500. *Spilosoma bifasciata*.

Spilarectia bifasciata, Butl., Trans. Ent. Soc. Lond., 1881, p. 7.

Butler's type was from Tokio. There were three specimens from Nikko in Pryer's collection, and I received one from Mr. Manley of Yokohama.

In one of the Nikko examples the medial portion of the sub-basal band on primaries is absent, and the central band is interrupted.

Habitat. JAPAN.

Kirby (Cat. Lep. Het., i, p. 232) mentions *S. bifasciata*, Hampson, and gives the locality as "China," but Hampson (Fauna Brit. Ind., Moths, ii, 9) refers to the species as from the "Nilgiris." I have not seen anything from China to agree with Hampson's description of *S. bifasciata*.

501. *Spilosoma imparilis*.

Spilarectia imparilis, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 394 ♂ (1877); Ill. Typ. Lep. Het., ii, p. 4, pl. xxii, fig. 4 ♂ (1878); A.M.N.H., (5) iv, p. 351 ♀ (1879); Fixsen, Rom. sur Léop., iii, p. 334 (1887).

Four male specimens and four females from Yesso in Pryer's collection; Mr. Smith took one female example at Hakone. Butler's type was from Yokohama.

The black maculation is a variable character in the female; one example of this sex from Yesso is devoid of marking, with the exception of a black dot on the left primary.

Habitat. JAPAN and YESSO.

502. *Spilosoma flammeolus*.

Alpenus flammeolus, Moore, Ann. and Mag. Nat. Hist., (4), xx, p. 89 (1877).

There was a specimen in Pryer's collection. I obtained the species at Nagasaki in June, and at Shimonoseki in July; a native collector took one example at Ningpo, and I received one from Kiukiang, where it was captured in June.

Distribution. JAPAN; KIUSHIU; NORTH-EASTERN and CENTRAL CHINA.

503. *Spilosoma flaveolum*, sp. n.

Yellowish-buff the primaries and abdominal area of secondaries tinged with fulvous. Primaries have a black dot at end of cell and a curved and slightly wavy line thence to inner margin. Secondaries have a dusky discal dot. Under surface yellowish-buff; all the wings have a blackish discal dot. Abdomen reddish, anal segments buff.

Expanse 44 millim.

Allied to *S. flammeolus*, Moore.

One female specimen from Chia-ting-fu, taken in June or July.

Habitat. WESTERN CHINA.

Genus RHYPARIA.

Hübner, Verz. bek. Schmett., p. 183 (1822?).

504. *Rhyparia purpurata*.

Bombyx purpurea, Linn., Syst. Nat., i, (2) p. 128 (1769); Hübn., Bomb., pl. xxxiii, fig. 142.

Rhyparia purpurata, Kirby, Cat. Lep. Het., i, p. 260 (1892).

One example from Oiwake in Pryer's collection. I bred one example in 1886 from a larva obtained at Gensan.

Distribution. EUROPE.—AMURLAND; JAPAN; COREA.

Genus RHYPARIOIDES.

Butler, Ann. and Mag. Nat. Hist., (4) xx, p. 395 (1877).

505. *Rhyparioides metalkana*.

Nemeophila metalkana, Led. Wien. Mon., v, p. 162, pl. iii, fig. 12 ♀ (May, 1861).

Chelonia flavida, Brem., Bull. Acad. Pétr., iii, p. 477 (1861); Lep. Ost-Sib., p. 39, pl. iv, fig. 4 (1864).

Rhyparioides metalkana, Kirby, Cat. Lep. Het., i, p. 249 (1892).

There were specimens from Yesso and the Loochoo Islands in Pryer's collection. I obtained one example at Gensan in June.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; COREA.

506. *Rhyparioides subvaria*.

Diacrisia subvaria, Walk., Cat. Lep. Het., iii, p. 637 (1855); Butl., Ill. Typ. Lep. Het., ii, pl. xxiii, fig. 3 (1878).

Nemeophila (Diacrisia) subvaria, Alph., Rom. sur Lép., ix, p. 131 (1897).

I have specimens from Ichang, Chang-yang, Ningpo, and Moupin, all taken in June and July. Alphéraky records a male specimen from Tao-pin in the province of Sé-Tchouen.

Distribution. NORTH-EASTERN, CENTRAL, and WESTERN CHINA.

507. *Rhyparioides amurensis*.

Chelonia rubescens, var. *amurensis*, Brem., Lep. Ost-Sib., p. 39, pl. iii, fig. 16 (1864).

Rhyparioides rubescens (part), Leech, Proc. Zool. Soc. Lond. 1888, p. 616.

There were two specimens, without exact locality, in Pryer's collection, and I have a male taken by Mr. Manley at Yokohama, and a female obtained at Hakodate by Mr. Andrews. My collectors met with the species in June and July, at Kiukiang, Chang-yang, Moupin, Chia-kou-ho, Pu-tsu-fong, and Wa-shan.

The female is more strongly marked than the male; in

some examples of the latter sex the primaries are without any spots whatever.

Distribution. AMURLAND; EASTERN SIBERIA; JAPAN; YESSO; CENTRAL and WESTERN CHINA.

508. *Rhyparioides nebulosa*.

Rhyparioides nebulosa, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 396 (1877); Ill. Typ. Lep. Het., ii, p. 5, pl. xxiii, fig. 2 (1878).

Rhyparioides simplicior, Butl., Trans. Ent. Soc. Lond., 1881, p. 6.

Rhyparioides rubescens (part), Leech, Proc. Zool. Soc. Lond., 1888, p. 616.

There were specimens from Yokohama, Oiwake, and Yesso in Pryer's collection; I have also received one example from Hakodate, and I obtained two males at Hakone in August.

The males (*simplicior*) are always much less suffused than the females (*nebulosa*).

In a former paper I treated *amurensis*, *nebulosa*, and *simplicior* as forms of *rubescens*, Walk., but I now find that the first three have nothing to do with the last named species; I have also been able to discover good differences between *amurensis*, Brem., and *nebulosa*, Butl., the most important of which is connected with the antennæ; these are pectinated in *amurensis*, but serrated in *nebulosa*.

Habitat. JAPAN and YESSO.

Genus DIACRISIA.

Hübner, Verz. bek. Schmett., p. 169 (1822?).

509. *Diacrisia russula*.

Bombyx sannio, Linn., Syst. Nat., i, p. 506 ♂ (1758).

Bombyx russula, Linn., Syst. Nat., i, p. 510 ♀; Hübn., Bomb., pl. xxix, figs. 124, 125.

Diacrisia sannio, Kirby, Cat. Lep. Het., i, p. 249 (1892).

Nemeophila russula, Alph., Rom. sur Lép., vi, p. 13 (1892).

Diacrisia russula, var. *amuri*, Staud., Rom. sur Lép., vi, p. 277 (1892).

There were examples of both sexes from Oiwake in

Pryer's collection, and I obtained a female specimen at Gensan.

Alphéraky records a typical female from Ou-pin.

As the Eastern Asian specimens of this species differ slightly from European examples, Dr. Staudinger has named the form *amuri*. He records a specimen from Amurland which is without markings on secondaries; this appears to be referable to *D. irene*, Butl.

Distribution. EUROPE.—AMURLAND; JAPAN; COREA; WESTERN CHINA.

510. *Diacrisia irene*.

Diacrisia irene, Butl., Trans. Ent. Soc. Lond., 1881, p. 6.

Probably only an aberration of *D. russula*. I have a German example of the latter species which is without black marking on both surfaces of the secondaries.

Habitat. JAPAN.

Genus *Nemeophila*.

Stephens, Ill. Brit. Ent., Haust., ii, p. 72 (1828).

511. *Nemeophila plantaginis*.

Bombyx plantaginis, Linn., Syst. Nat., i, p. 501 (1758).

Parasemia plantaginis, Kirby, Cat. Lep. Het., i, p. 250 (1892).

Nemeophila macromera, Butl., Trans. Ent. Soc. Lond., 1881, p. 5.

Nemeophila macromera, var. *leucomera*, Butl., l. c.

Nemeophila macromera, var. *melanomera*, Butl., l. c.

Parasemia macromera, Kirby, Cat. Lep. Het., i, p. 250 (1892).

Dr. Staudinger states that this species in Amurland is exceedingly variable, and that the males always have white secondaries. Graeser described a form under the name *floccosa*, of which I have received four males and two females from Nicolajefsk. *Leucomera*, Butl., resembles var. *hospita* on the secondaries, but approaches more nearly to var. *matronalis* on the primaries. *Macromera*, Butl., is a large modification of the type form, the secondaries in both sexes being of the usual pale yellow. *Melanomera*, Butl., is the Japanese representative of the European var. *matronalis*.

Distribution. EUROPE.—ALTAI; AMURLAND; JAPAN.

Genus THYRGORINA.

Walk.; Hampson, Fauna Brit. Ind., Moths, ii, p. 11 (1894).

512. *Thyrgorina rhodophila*.

Spilosoma rhodophila, Walk., Cat. Lep. Het., xxxi, p. 294 (1864).

Icambosida rhodophila, Butl., Ill. Typ. Lep. Het., v, p. 29, pl. lxxxv, fig. 4 (1881).

Icambosida dorsalis, Moore, Proc. Zool. Soc. Lond., 1888, p. 394.

Thyrgorina rhodophila, Hampson, Fauna Brit. Ind., Moths, ii, p. 15 (1894).

Thyrgorina dorsalis, Alph., Rom. sur Lép., vi, p. 15 (1892).

Two male specimens from Moupin, three from Omei-shan, one from Pu-tsu-fong, and one from Chang-yang; one female example from Moupin. June, July, and August. Alphéraky records a female specimen taken in July in the Hei-ho valley.

Distribution. NORTH-WEST HIMALAYAS; SIKHIM; NÁGAS; MANIPUR (*Hampson*); CENTRAL and WESTERN CHINA.

513. *Thyrgorina costimacula*, sp. n.

Differs from *T. rhodophila* in having on primaries an oblique line direct from the apex to middle of inner margin, a distinct spot at end of the cell, and two blackish spots on the costa. The palpi are blackish and without pink fringe.

Expanse 40—42 millim.

One example of each sex from Moupin, one male from Wa-shan, and one female from Chia-ting-fu. Occurs in June and July.

The female specimen from Chia-ting-fu has only one spot on the costa.

Habitat. WESTERN CHINA.

514. *Thyrgorina melanosoma*.

Thyrgorina melanosoma, Hampson, Fauna Brit. Ind., Moths, ii, p. 15 (1894).

I have one female specimen from Wa-shan, where it was captured in July, which appears to be referable to

this species, but the abdomen is more 'densely clothed with white hair, and the wings are less diaphanous.

Distribution. KULU; SIKHIM; KHÁSIS (*Hampson*); WESTERN CHINA.

515. *Thyrgorina inæqualis*.

Spilarctia inæqualis, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 351 (1879).

A fine series from Ohoyama and Fujisan in Pryer's collection. I obtained the species at Hakone and have received one male specimen from Chang-yang, where it was taken in June. There is a good deal of variation, not only in tone of colour, but also in the intensity of the black markings.

Distribution. JAPAN; CENTRAL CHINA.

516. *Thyrgorina phasma*, sp. n.

Head and thorax whitish, front of prothorax yellowish-buff, tegulae with a blackish dot; abdomen yellow with dorsal and lateral series of black spots.

Primaries whitish with a discal spot and five macular, pale fuscous bands, the first and fifth not extending to inner margin; there is a blackish spot at the base and two, or three, along the costa. Secondaries whitish, with a rather broad pale fuscous, antemedial band which does not extend to the costa. Undersurface similar to above.

Expanse 30 to 32 millim.

One male specimen from Pu-tsu-fong, and one from the province of Kwei-chow. June and July.

Habitat. WESTERN CHINA.

Genus ARCTIA.

Schrank., *Hampson*, Fauna Brit. Ind., Moths, ii, p. 15 (1894).

517. *Arctia caia*.

Bombyx caia, Linn., Syst. Nat., i, p. 500 (1758).

Hypercompa caia, Kirby, Cat. Lep. Het., i, p. 258 (1892).

Euprepia phæosoma, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 395 (1877); Ill. Typ. Lep. Het., iii, p. 7, pl. xlii, fig. 10 (1879).

E. phæosoma, var. *auripennis*, Butl., Trans. Ent. Soc., 1881, p. 7.

Hypercompa phæosoma, Kirby, *l. c.*, p. 259.

Euprepia caia, Leech, Proc. Zool. Soc. Lond., 1888, p. 617.

Arctia orientalis, Moore, Ann. and Mag. Nat. Hist., (5) i, p. 230 (1878); Hampson, Fauna Brit. Ind., Moths, ii, p. 16 (1892).

Appears to be generally distributed in Japan; and Alphéraky records it from Corea. *Orientalis*, Moore, is not worth retaining even as a varietal name. *Auripennis*, Butl., is a form with the secondaries yellow instead of scarlet. Some of the Japanese examples are exceptionally large.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; COREA; HIMALAYAS.

518. *Arctia mirifica*.

Chelonia mirifica, Oberth., Etud. d'Entom., xvi, p. 8, pl. i, fig. 7 (1892).

I have two specimens from the high plateau to the north of Ta-chien-lu.

Habitat. WESTERN CHINA.

Genus THANATARCTIA.

Butler, Ann. and Mag. Nat. Hist. (4) xx, p. 395 (1877).

519. *Thanatarectia infernalis*.

Thanatarectia infernalis, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 395 (1877); Ill. Typ. Lep. Het., iii, p. 7, pl. xlii, fig. 9 (1879).

One male specimen from Nikko and one from Oiwake in Pryer's collection. I obtained one example of the same sex, and my collector another, at Hakodate in August.

Distribution. JAPAN; YESSO.

Genus ARCTINIA.

Eichwald, Zool. Spec., ii, p. 195 (1831).

520. *Arctinia cæsarca*.

Bombyx cæsarca, Goeze, Ent. Beytr., iii, (3) p. 63 (1781).

Bombyx luctifera, Esp., Schmett., iii, p. 222, pl. xliii, figs. 1-5 (1784).

Atolmis japonica, Walk., Cat. Lep. Het. Suppl., i, p. 223 (1864).

Arctinia caesarea, Kirby, Cat. Lep. Het., i, p. 276 (1892).

Estigmene mœrens, Butl., Cist. Ent., iii, p. 114 (1885).

I took one example of the type form at Nagasaki in June, and there was one from Oiwake in Pryer's collection; there were also two specimens of *mœrens*, Butl., from Oiwake and Yokohama, in the same collection. In this form the yellow anal patch of secondaries is almost or quite absent, and the wings generally are more opaque; I have exactly similar specimens in my European series of the species.

Distribution. EUROPE.—AMURLAND; NORTH-EASTERN CHINA.

Genus OCNOGYNA.

Rambur, Cat. Léop. And., ii, p. 255 (1866).

521. *Ocnogyna y-albulum*.

Arctia y-albulum, Oberth., Etud. d'Entom., xi, p. 31, pl. v, fig. 29 (1886); Alphéraky, Rom. sur Léop., ix, p. 127 (1897).

Arctia y-albulum, var. *lugubris*, Oberth., l. c.

Apantesis y-albulum, Kirby, Cat. Lep. Het., i, p. 269 (1892).

Of the typical form I have received four male specimens and one female from Ta-chien-lu, two females from Moupin and one female from Pu-tsu-fong. Of var. *lugubris*, which has the secondaries entirely black, I have two male examples from Ta-chien-lu. Two other male specimens from the last-named locality, and one from Moupin have the ground colour of secondaries crimson instead of golden-yellow as in the type. I propose the name *rubida* for this form. Alphéraky records a female example from Tâ-Tsien-loû, which seems to be referable to var. *rubida*; he also notes a male, with orange-yellow secondaries, from Va-ssou-Kóou.

Habitat. WESTERN CHINA.

Genus PHRAGMATOBIA.

Stephens, Ill. Brit. Ent. Haust., ii, p. 73 (1828).

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522. *Phragmatobia fuliginosa*.

Bombyx fuliginosa, Linn., Syst. Nat., i, p. 509 (1758).

Spilosoma fuliginosa, var. *pulverulenta*, Alph., Rom. sur Lép., v, p. 84 (1889).

Phragmatobia fuliginosa, Kirby, Cat. Lep. Het., i, p. 244 (1892).

Two examples of the form *borealis*, Staud., in Pryer's collection.

Distribution. EUROPE.—AMURLAND; JAPAN.

Genus ALPHÆA.

Walker, Cat. Lep. Het., iii, p. 683 (1855).

523. *Alphæa fulvohirta*.

Alphæa fulvohirta, Walk., Cat. Lep. Het., iii, p. 684 (1855); Butl., Ill. Typ. Lep. Het., v, p. 31, pl. lxxxv, fig. 8 (1881).

One specimen from Chia-kou-ho and one from Wa-shan, both taken in July.

Distribution. SIKHIM (*Hampson*); WESTERN CHINA.

524. *Alphæa lewisii*.

Seriartia lewisii, Butl., Cist. Ent., iii, p. 115 (1885).

Eight specimens from Oiwake in Pryer's collection, two received from Mr. Manley of Yokohama; and one from Ta-chien-lu; the latter was taken in July.

Distribution. JAPAN; WESTERN CHINA.

Closely allied to *A. quadriramosa*, Koll., from the North-west Himalayas.

Genus AREAS.

Walker, Cat. Lep. Het., iii, p. 658 (1855).

525. *Areas galactina*.

Chelonia galactina, Hœv., Tijdschr. Nat. Gesch. Phys., vii, p. 280, pl. vi, figs. 5, 56 (1840).

Areas orientalis, Walk., Cat. Lep. Het., iii, p. 658 (1855).

Neumenes trigonalis, Voll., Tijd. v. Ent., vi, p. 140, pl. x, fig. 1 (1863).

Areas galactina, Hampson, Fauna Brit. Ind., Moths, ii, p. 25 (1894).

I received one female specimen from each of the following localities—Moupin, Omei-shan, Chia-kou-ho. They were all taken in June.

Distribution. HIMALAYAS; KHÁSIS; NÁGAS; WESTERN CHINA; BORNEO; JAVA.

Genus CREATONOTUS.

Hübner, Hampson, Fauna Brit. Ind., Moths, ii, p. 26 (1894).

526. *Cretonotus interruptus*.

Phalæna interrupta, Linn., Syst. Nat. Phal., i, v, p. 2553.

Cretonotus interruptus, Hampson, Fauna Brit. Ins., Moths, ii, p. 26 (1894).

Two specimens from Ichang, taken in August.

Distribution. Throughout INDIA, CEYLON, and BURMA (*Hampson*); CENTRAL CHINA.

527. *Cretonotus lactineus*.

Aloa lactinea, Cram., Pap. Exot., ii, p. 58, pl. cxxxiii, fig. D (1777).

Bombyx sanguinolenta, Fabr., Ent. Syst., iii, p. 473 (1793).

Aloa lactinea, Walk., Cat. Lep. Het., iii, p. 702.

Rhodogastria lactinea, Leech, Trans. Ent. Soc. Lond., 1889, p. 124.

Cretonotus lactineus, Hampson, Fauna Brit. Ind., Moths, ii, p. 27 (1894).

There were specimens from Yokohama and Oiwake in Pryer's collection, and I have received others from Ichang and Chia-ting-fu, the latter taken in July and August.

The species varies considerably in the maculation of secondaries.

Distribution. Throughout INDIA, CEYLON, and BURMA; JAVA (*Hampson*); JAPAN; NORTHERN, WESTERN, and CENTRAL CHINA.

Genus PHISSAMA.

Moore, Cat. Lep. E. I. C., p. 362 (1858).

528. *Phissama vacillans*.

Amphissa vacillans, Walk., Cat. Lep. Het., iii, p. 685 (1855).

Phissama vacillans, Butl., Ill. Typ. Lep. Het., iii, p. 5, pl. xlii, fig. 4 (1879).

Phissama transiens, Hampson, Fauna Brit. Ind., Moths, ii, p. 29 (1894).

One male specimen from Ichang, taken in August.

Rather smaller than examples in my collection from Kulu, and the primaries are a trifle paler in colour.

Distribution. INDIA; CENTRAL CHINA.

Genus NICEA.

Nikæa, Moore, Lep. Atk., p. 11 (1879).

Nicæa, Hampson, Fauna Brit. Ind., Moths, ii, p. 30 (1894).

529. *Nicæa longipennis*.

Hypercompa longipennis, Walk., Cat. Lep. Het., ii, p. 655 (1855).

Nikæa longipennis, Butl., Ill. Typ. Lep. Het., v, p. 18, pl. lxxxii, fig. 7 (1880); Alph., Rom. sur Léop. ix, p. 128 (1897).

Nicæa longipennis, Hampson, Fauna Brit. Ind., Moths, ii, p. 30 (1894).

A long series received from Chang-yang, taken in June and July. I have also one or more specimens from each of the following localities—Ichang, September; Wa-ssukow and Omei-shan, June; Moupin, June and August; Wa-shan, July. Alphéraky records the species from Taï-Sian-Guan, province of Sé-Tchouen.

Distribution. KUMAUN; SIKHIM; SILHET (*Hampson*); CENTRAL and WESTERN CHINA.

Genus CAMPTOLOMA.

Felder, Reise Novara, Lep. iv, p. 2 (1875).

530. *Camptoloma interioratum*.

Numens interiorata, Walk., Cat. Lep. Het. Suppl., i, p. 290 (1864).

Camptoloma interioratum, Kirby, Cat. Lep. Het., i, p. 359 (1892); Hampson, Fauna Brit. Ind., Moths, ii, p. 31, (1894).

There was a very fine series from Yokohama in Pryer's collection. My collectors did not meet with the species in any part of China that they visited.

Distribution. EASTERN CHINA; JAPAN.

Genus CALPENIA.

Moore, Proc. Zool. Soc. Lond., 1872, p. 571.

531. *Calpenia zerenaria*.

Euprepia zerenaria, Oberth., Etud. d'Entom., xi, p. 30, pl. iii, fig. 17 (1886).

Callimorpha zerenaria, Kirby, Cat. Lep. Het., i, p. 912 (1892).

I have two specimens from Chang-yang, four from Chia-kou-ho, one from Moupin, and one from Omei-shan. Occurs in June and July.

Variation is exhibited in the size and intensity of the black markings, and also in the tone of the yellow of secondaries.

Habitat. CENTRAL and WESTERN CHINA.

Genus CALLIMORPHA.

Fabr.; Hampson, Fauna Brit. Ind., Moths, ii, p. 34 (1894).

532. *Callimorpha principalis*.

Euprepia principalis, Koll., Hugel's Kasch., iv, (2) p. 465, pl. xx, fig. 2 (1844).

Hypercompa principalis, var. *regalis*, Leech, Trans. Ent. Soc. Lond., 1889, p. 125, pl. ix, fig. 4.

Callimorpha principalis, Kirby, Cat. Lep. Het., i, p. 255 (1892); Hampson, Fauna Brit. Ind., Moths, ii, p. 35 (1894).

Euprepia equitalis, Koll., Hugel's Kasch., p. 465, (2) pl. xx, fig. 3 (1848).

Callimorpha equitalis, Hampson, Fauna Brit. Ind., Moths, ii, p. 36 (1894).

Callimorpha equitalis, var. *ochricolor*, Alph., Rom. sur Lép., ix, p. 128 (1897).

The typical form of this species does not appear to occur in China, but it is represented in the Central and Western parts of the country by var. *regalis*. Var. *equitalis* is common throughout the same area, and there are all intergrades between this form and that which I have described as *regalis*. One example taken at Wa-ssu-kow seems to agree with the description of *nyctemerata*, Moore, from Sikhim.

Var. *ochricolor*, Alph., which has the secondaries yellowish-ochre in colour, is described from the Kham mountains.

Distribution. HIMALAYAS; KHÁSIS; BURMA; CENTRAL and WESTERN CHINA.

533. *Callimorpha nepos*, sp. n.

Head yellow, palpi marked with black, a black spot on the frons and two at the back of the head; collar black edged with yellow; thorax yellow, the prothorax and tegulæ marked with black; abdomen yellow with dorsal and lateral series of black spots, those of dorsal series large.

Primaries blackish, with white markings placed as follows—three small spots between the cell and the costa; a blotch from the yellowish base to vein 2, this is widest towards the base and is only separated from an oblong spot in the cell by the median nervure; a large round spot at end of the cell with a dot above it; a transverse series of seven large spots, the fifth oblong and extending almost to the outer margin; a submarginal series of four small spots, one in each interspace above the oblong spot of median series, and a large one below it which extends to the outer margin and is intersected by vein 2; the inner margin is narrowly white. Secondaries white, with much interrupted, macular, median, and submarginal black bands, the first composed of four small spots and the latter of four larger spots; there are some black dots at the ends of the veins before the white fringes. Undersurface as above.

Expanse 72 millim.

One male specimen from Chia-ting-fu, taken in June or July.

Habitat. WESTERN CHINA.

Allied to *C. nyctemerata*, Moore, and *C. equitalis*, Koll., from each of which, however, it may be distinguished by the different arrangement of the four apical spots, the large spot above the outer angle, and the elongate double spot at base of the primaries.

534. *Callimorpha histrio*.

Hypercompa histrio, Walk., Cat. Lep. Het., iii, p. 654 (1855); Fixsen, Rom. sur Lép., iii, p. 333, pl. xv, 2 (1887); Alph., Rom. sur Lép., ix, p. 129 (1897).

Callimorpha histrio, Kirby, Cat. Lep. Het., i, p. 256 (1892).

I took specimens at Ningpo in April, and two at Gensan in July; I have also received examples from Moupin, Omei-shan, Chia-ting-fu, and the province of Kwei-chow; all the latter were obtained in June and July.

In the Ningpo and Gensan specimens the spots on primaries are rather larger, and those on outer area more or less confluent.

Alphéraky records a specimen, taken in September, from Tâ-choui-van, province of Sé-Tchouen.

Distribution. NORTH-EASTERN and WESTERN CHINA; COREA.

535. *Callimorpha* (?) *miranda*.

Chelonia miranda, Oberth., Etud. d'Entom., xix, p. 33, pl. vi, fig. 50 (1894).

Described by Oberthür from a male specimen obtained in June at Moenia (Thibet); my collectors do not appear to have met with the species in any part of Western China that they visited.

Habitat. THIBET.

Genus PELOCHYTA.

Hübner, Hampson, Fauna Brit. Ind., Moths, ii, p. 38 (1894).

536. *Pelochyta astrea*.

Sphinx astreus, Drury, Ins., ii, pl. xxviii, fig. 4 (1773).

Rhodogastria astræa, Moore, Lep. Ceyl., ii, p. 76, pl. cviii, figs. 1, 1a (1882).

Pelochyta astrea, Hampson, Fauna Brit. Ind., Moths, ii, p. 38 (1894).

One example from Chia-kou-ho, taken in June, and one from Ta-chien-lu, taken in July.

Distribution. FORMOSA; throughout INDIA, CEYLON, and BURMA (Hampson); WESTERN CHINA.

Genus CALLARCTIA, nov.

Palpi porrect, hairy, third joint minute. Antennæ fully ciliated. Proboscis of moderate length. Primaries rather long and narrow; veins 3 and 4 from lower angle of cell, 5 from above angle or sometimes from middle of the discocellulars; 6, 7, 8, 9, and 10 stalked. Secondaries with veins 3 and 4, also 6 and 7 stalked. Hind tibiæ with two pairs of spurs, the terminal pair short.

In the female vein 3 of primaries is from angle of cell, and 4 and 5 from just above angle.

Type, *C. bieti*, Oberthür.

537. *Callarectia bieti*.

Chelonia bieti, Oberth., Bull. Soc. Ent. Fr., (6) iii, p. xliii, (1883); Etud. d'Entom., ix, p. 20, pl. ii, fig. 11 (1884).

Arctia bieti, Kirby, Cat. Lep. Het., i, p. 260 (1892).

I have twenty-five examples from the following localities—Ta-chien-lu, Omei-shan, Wa-shan, Pu-tsu-fong, and Wa-ssu-kow.

Some of the specimens have very pale yellow secondaries and are referable to var. *sulphurea*, Oberth., but none of them seem to quite agree with var. *albescens* of the same author. In some specimens the costal band of primaries is quite separate from the oblique band beyond, and the subapical is almost round. On the secondaries the discal spot is not always present, and there is considerable aberration from the type, as figured, in the black marking of outer margin. In one example from Pu-tsu-fong the secondaries are devoid of marking, whilst another from Wa-ssu-kow has an almost uninterrupted black outer marginal border and an irregular central band of the same colour.

Habitat. WESTERN CHINA.

538. *Callarectia pratti*.

Chelonia bieti, var. *pratti*, Leech, Entom., xxiii, p. 111 (1890).

I find that this insect, which I formerly considered to be a form of *C. bieti*, differs in some slight structural details from that species. In both sexes vein 6 of primaries is not stalked with 7, 8, 9, and 10, but has independent

origin at the upper angle of cell, whilst in the female veins 3 and 4 are not stalked.

The original comparative description was made from three Chang-yang female examples taken in June; I have since received two male specimens from Chia-kou-ho, where they were obtained in July.

The male differs from the female in having the costal band of primaries narrow, and the oblique band represented only by a more or less oval spot before inner angle.

Habitat. CENTRAL and WESTERN CHINA.

Subfamily *LITHOSIINÆ*.

Genus *ELIGMA*.

Hübner; Hampson, *Fauna Brit. Ind.*, Moths, ii, p. 43 (1894).

539. *Eligma narcissus*.

Bombyx narcissus, Cram., *Pap. Exot.*, i, pl. lxxiii, figs. E, F (1775).

Eligma narcissus, Leech, *Trans. Ent. Soc. Lond.*, 1889, p. 127; Hampson, *Fauna Brit. Ind.*, Moths, ii, p. 43 (1894).

Specimens were received from Moupin, Omei-shan, Chia-kou-ho, Wa-shan, Ichang, and Chang-yang. The species occurs in July and August.

Kirby (*Cat. Lep. Het.*, i, p. 383) refers this species to the *Hypsidæ*.

Distribution. GANJAM; S. INDIA; CEYLON; PENANG; JAVA (*Hampson*); WESTERN and CENTRAL CHINA.

Genus *NYCTEMERA*.

Hübner; Hampson, *Fauna Brit. Ind.*, Moths, ii, p. 46 (1894).

540. *Nyctemera plagifera*.

Nyctemera plagifera, Walk., *Cat. Lep. Het.*, ii, p. 400 (1854); Hampson, *Fauna Brit. Ind.*, Moths, ii, p. 47 (1894).

Tryptheromera plagifera, Butl., *Ill. Typ. Lep. Het.*, v, p. 45, pl. lxxxviii, fig. 3 (1881); Kirby, *Cat. Lep. Het.*, i, p. 423 (1892).

Occurs in July at Wa-shan, Huang-mu-chang, Chia-

kou-ho, Chia-ting-fu, and Omei-shan; also in the province of Kwei-chow, and at Kiukiang. There were specimens from Loochoo in Pryer's collection.

Distribution. Throughout INDIA (Hampson); CENTRAL and WESTERN CHINA; LOOCHOO.

541. *Nyctemera* (?) *trigona*, sp. n.

Primaries yellow, streaked with blackish along costal and inner marginal areas, the costal streak has a spot-like projection before apex; there is a triangular blackish spot on outer margin connected with the broad apical extremity of the costal streak by a narrow line of the same colour; a large triangular, blackish spot on the disc has its base on a level with the inner margin. Secondaries orange, with three blackish streaks from the base, and a series of large blackish spots on the outer margin; the two upper streaks extend only to the median area of the wing, but the lower one unites with the last spot of outer marginal series. Head and thorax black marked with yellow; abdomen black with the segmental divisions and hairs at anal extremity yellow.

Expanse 36 millim.

Var. *nigra*. Markings of primaries fuliginous black and wider than in the type, especially the triangular mark on central area, which becomes cuneiform in shape; secondaries entirely fuliginous black.

Sixteen examples of the typical form and five of the variety were received from the high plateau to the north of Ta-chien-lu. All are males.

Habitat. WESTERN CHINA.

Genus DEIOPEIA.

Steph.; Hampson, Fauna Brit. Ind., Moths, ii, p. 54 (1894).

542. *Deiopeia pulchella*.

Tinea pulchella, Linn., Syst. Nat., i, 2, p. 884 (1767).

Utetheisa pulchella, Kirby, Cat. Lep. Het., i, p. 346 (1892).

Deiopeia pulchella, Hampson, Fauna Brit. Ind., Moths, ii, p. 55 (1894).

There were four specimens in Pryer's collection, two of which are from Loochoo. My native collector obtained a male in the Island of Kiushiu which measures only 25 millim. in expanse.

I have seven examples from Wa-shan, one from Ni-tou, and one from Pu-tsu-fong, all taken in July.

Distribution. Throughout INDIA and CEYLON; PHILIPPINES; MALAY ARCHIPELAGO; NEW GUINEA; AUSTRALIA and the PACIFIC GROUPS (*Hampson*); EUROPE; ASIA MINOR; AFRICA; JAPAN; WESTERN CHINA.

Genus BIZONE.

Bizone, Walk., Cat. Lep. Het., ii, p. 548 (1854).

Cyana, Hampson, Fauna Brit. Ind., Moths, ii, p. 56 (1894).

543. *Bizone hamata*.

Bizone hamata, Walk., Cat. Lep. Het., ii, p. 549 (1854);
Elwes, Proc. Zool. Soc. Lond., 1890, p. 391.

Bizone puella, Fixsen (*nec* Drury), Rom. sur Lép., iii, p. 332 (1887).

The specimens in Pryer's collection were from Yokohama, Oiwake, and Yesso; a native collector obtained the species at Gensan and in the island of Kiushiu, and my collectors in China sent examples from Kiukiang, Changyang, Ichang, Wa-shan, Chow-pin-sa, Chia-kou-ho, Moupin, and the province of Kwei-chow. Occurs in May, June, and July.

Distribution. JAPAN; YESSO; KIUSHIU; COREA; NORTH-EASTERN, CENTRAL and WESTERN CHINA.

544. *Bizone sanguinea*.

Calligenia sanguinea, Brem. and Grey, Motsch. Etud. Ent., i, p. 63 (1852); Schmett. nörd. China, p. 14 (1853).

Bizone sanguinea, Kirby, Cat. Lep. Het., i, p. 302 (1892).

I am not able to identify this species from the description; the specimens I referred to *B. sanguinea* in a former paper (Trans. Ent. Soc. Lond., 1889, p. 126) are examples of *B. cruenta*.

Habitat. NORTH CHINA.

545. *Bizone cruenta*.

Bizone cruenta, Leech, Entom., xxiii, p. 49 (1890).

Bizone dubenskii, Alph., Rom. sur Lép., vi, p. 11, pl. i, fig. 5 (1892); *op. cit.*, ix, pp. 129, 130 (1897).

A long series from Chang-yang and another from Moupin. I have also received the species from Ichang, Wa-shan, Ni-tou, Chia-ting-fu, Chia-kou-ho, Chow-pin-sa, and Wa-ssu-kow. Occurs in May, June, July, and August, but the majority of my examples were obtained in May and June. Alphéraky describes this species from specimens taken in July near the river Heï-hò.

In most of the specimens from Western China the colour of the secondaries and of the markings of the primaries is less vivid than those from Central China.

Habitat. CENTRAL and WESTERN CHINA.

546. *Bizone fasciola*.

Bizone fasciola, Leech, MS.; Elwes, Proc. Zool. Soc. Lond., 1890, p. 391.

A fine series from Ichang and Chang-yang; the specimens were taken in June and July. I have also received one example from Wa-shan.

Habitat. CENTRAL and WESTERN CHINA.

547. *Bizone unipunctata*.

Bizone unipunctata, Leech, MS.; Elwes, Proc. Zool. Soc. Lond., 1890, p. 392.

One male specimen and two females taken by myself in Satsuma in May, 1886; two males and four females from the Loochoo islands in Pryer's collection.

One of the females from Satsuma has yellow bands on primaries.

Distribution. KIUSHIU; LOOCHOO ISLANDS.

548. *Bizone adita*.

Bizone adita, Moore, Lep. E. I. Co., ii, p. 306, pl. viia, fig. 11 (1858).

Bizone bifasciata, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. cxxiv, (1886).

Poujade's type, a female, was from Moupin, and I have one example of the same sex from that locality.

In his paper (Proc. Zool. Soc. Lond., 1890, pp. 378-400), Mr. Elwes does not mention *bifasciata*, Poujade, but the insect he figures as *B. signa* ♀ ? var. (Plate xxxii, fig. 7) may be referable to it.

Hampson (*l.c.*) includes *adita*, Moore, under *B. signa*, Walk.

Distribution. HIMALAYAS; WESTERN CHINA.

549. *Bizone ariadne*.

Bizone ariadne, Leech, MS.; Elwes, Proc. Zool. Soc. Lond., 1890, p. 394.

Seven male specimens and one female from Chang-yang taken in June, and one female from Chia-ting-fu.

Habitat. CENTRAL and WESTERN CHINA.

550. *Bizone pratti*.

Bizone pratti, Elwes, Proc. Zool. Soc. Lond., 1890, p. 394.

A fine series, mostly male specimens, from Chang-yang and Ichang. Occurs in June and July.

Habitat. CENTRAL CHINA.

551. *Bizone interrogationis*.

Bizone interrogationis, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. cxxv, (1886).

Occurs at Kiukiang, Chang-yang, Moupin, and Ni-tou in June and July; I have specimens from each of these localities and also from Ningpo.

Mr. Elwes does not mention this species in his paper previously referred to.

Habitat. CENTRAL, WESTERN, and NORTHERN CHINA.

552. *Bizone sikkimensis*.

Bizone sikkimensis, Elwes, Proc. Zool. Soc. Lond., 1890, p. 395, pl. xxxii, fig. 6 ♂, 5 ♀; Hampson, Fauna Brit. Ind., Moths, ii, p. 59 (1894).

One example of each sex from Pu-tsu-fong, taken in June or July.

Distribution. SIKHIM (*Hampson*); WESTERN CHINA.

553. *Bizone phædra*.

Bizone phædra, Leech, Trans. Ent. Soc. Lond., 1889, p. 126, pl. ix, fig. 6.

The type, a female, was from Kiukiang; I have since received specimens from Chang-yang, Chow-pin-sa, Tachien-lu, and Wa-ssu-kow.

I have also received a long series of specimens from Moupin which differ from the typical form in having the bands of primaries and the coloration of secondaries dull orange varying to lemon-yellow. For this local race I propose the varietal name *moupinensis*.

This species in the typical form varies greatly in the width of the transverse bands on primaries; in one example nearly the whole of the wing is suffused with pink.

Habitat. CENTRAL and WESTERN CHINA.

554. *Bizone alba*.

Bizone alba, Moore, Proc. Zool. Soc. Lond., 1878, p. 28.

Described from "North China." My collectors did not obtain the species in any part of China that they explored.

Genus MACRONOLA.

— Kirby, Cat. Lep. Het., i, p. 299 (1892).

555. *Macronola decipiens*.

Cyana decipiens, Butl., Ann. and Mag. Nat. Hist., (5), iv, p. 352 (1879).

Macronola decipiens, Kirby, Cat. Lep. Het., i, p. 300 (1892).

Described from Japan. There were no specimens of the species in Pryer's collection, and I did not meet with it in any part of Japan that I visited.

Habitat. JAPAN.

Genus KERALA.

Moore, Proc. Zool. Soc., 1881, p. 329 (1894).

556. *Kerala macroptera*.

Leptina macroptera, Oberth., Etud. d'Entom., v, p. 68, pl. vii, fig. 2 (1880).

Kerala macroptera, Alph., Rom. sur Lép., vi, p. 18 (1892).

Alphéraky records one example of this species from the province of Sé-Tchouen. Taken in August.

Distribution. AMURLAND; ASKOLD; WESTERN CHINA.

Genus MELANÆMA.

Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 397 (1877).

557. *Melanæma venata*

Melanæma venata, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 397 (1877); Ill. Typ. Lep. Het., ii, p. 6, pl. xxii, fig. 5 (1878).

There were specimens from Oiwake and Yokohama in Pryer's collection, and I have received others taken in the latter locality from Mr. Manley. The species is recorded from several places in Amurland.

Distribution. JAPAN; AMURLAND.

Genus AGRISIUS.

Walk., Cat. Lep. Het., iii, p. 723 (1855).

558. *Agrisius guttivitta*.

Agrisius guttivitta, Walk., Cat. Lep. Het., iii, p. 723 (1855); Butl., Ill. Typ. Lep. Het., v, p. 40, pl. lxxxvii, fig. 2 (1881).

Appears to be fairly common at Chang-yang in July. I have also received specimens from Moupin, Wa-shan, Ni-tou, and Chia-ting-fu.

Distribution. SIKHIM (Hampson); CENTRAL and WESTERN CHINA.

559. *Agrisius fuliginosus*.

Agrisius fuliginosus, Moore, Proc. Zool. Soc. Lond., 1872, p. 571, pl. xxxiii, fig. 3; Hampson, Fauna Brit. Ind., Moths, ii, p. 65 (1894).

Agrisius japonicus, Leech, Proc. Zool. Soc. Lond., 1888, p. 598, pl. xxx, fig. 10.

One specimen from Satsuma, taken in May, and one from the province of Kwei-chow, captured in June or July.

Distribution. "INDIA" (*Hampson*); JAPAN; WESTERN CHINA.

Genus MACROBROCHIS.

Herr-Schäff.; *Hampson*, Fauna Brit. Ind., Moths, ii, p. 66 (1894).

560. *Macrobrochis prasena*.

Tripura prasena, Moore, Cat. Lep., E.I.Co., p. 299, pl. viia, fig. 6 (1859).

Macrobrochis prasena, *Hampson*, Fauna Brit. Ind., Moths, ii, p. 66 (1894).

One male specimen from Ta-chien-lu, taken in July.

Distribution. DALHOUSIE; DHARMSÁLA; SIKHIM; NÁGA HILLS (*Hampson*); WESTERN CHINA.

Genus SIDYMA.

Walker; *Hampson*, Fauna Brit. Ind., Moths, ii, p. 67 (1894).

561. *Sidyra remelana*.

Lithosia remelana, Moore, Proc. Zool. Soc. Lond., 1865, p. 798.

Crambomorpha remelana, Butl., Trans. Ent. Soc. Lond., 1877, p. 357.

Vamuna remelana, Moore, Proc. Zool. Soc. Lond., 1878, p. 10.

Gnophria quadrimaculata, Müschler, Stett. Ent. Zeit., 1872, p. 352.

Sidyra remelana, *Hampson*, Fauna Brit. Ind., Moths, ii, p. 68 (1894).

One example taken in June or July at Chia-ting-fu.

Distribution. SIKHIM; KHÁSIS (*Hampson*); WESTERN CHINA.

Genus PARAONA.

Moore, Proc. Zool. Soc. Lond., 1878, p. 8.

562. *Paraona staudingeri*.

Paraona staudingeri, Alph., Rom. sur Lép., ix, p. 168, pl. xii, fig. 8 ♀ (1897).

I have one male specimen from Omei-shan which was taken in June or July. Alphéraky's types, two females, were from Corea.

The collar is deeper yellow, and my example does not exhibit any trace of the transverse pale line indicated in the figure of the type.

Distribution. COREA; WESTERN CHINA.

Genus GNOPHRIA.

Steph.; Hampson, Fauna Brit. Ind., Moths, ii, p. 69 (1884).

563. *Gnophria collitoides*.

Ghonia collitoides, Butl., Cist. Ent., iii, p. 115 (1885).

There was a series of specimens from Oiwake and Nikko in Pryer's collection. This species is very close to "*Lithosia*" *gigantea*, Oberth., but may be distinguished by the frons, which is black instead of yellow, and the costal stripe is not continued to apex.

Habitat. JAPAN.

564. *Gnophria sericeipennis*.

Ghonia sericeipennis, Moore, Proc. Zool. Soc. Lond., 1878, p. 13.

Gnophria sericeipennis, Hampson, Fauna Brit. Ind., Moths, ii, p. 69 (1894).

One male from Chang-yang, and one example of each sex from Pu-tsu-fong, taken in July.

Distribution. SIKHIM (*Hampson*); CENTRAL and WESTERN CHINA.

565. *Gnophria albocinerea*.

Ghonia albocinerea, Moore, Proc. Zool. Soc. Lond., 1878, p. 13, pl. i, fig. 10.

Gnophria albocinerea, Hampson, Fauna Brit. Ind., Moths, ii, p. 70 (1894).

One example of each sex from Pu-tsu-fong, taken in June or July.

Distribution. SIKHIM (*Hampson*); WESTERN CHINA.

566. *Gnophria vittata*, sp. n.

Head and collar orange; thorax black, tegulae yellow; abdomen colour of secondaries, but darker towards the anal extremity, and also beneath. Primaries black, costa and inner margin narrowly yellow; there is a paler yellow stripe from the base of the wing to middle of the outer margin; fringes blackish to just below stripe, remainder yellowish. Secondaries pale ochreous tinged with fuscous. Under surface ochreous tinged with fuscous, the primaries clouded with blackish.

Expanse 44 millim.

Two male specimens from Ni-tou, and one from Omei-shan, taken in July.

Habitat. WESTERN CHINA.

567. *Gnophria* (?) *sincensis*, sp. n.

Primaries pale brown with a black dot on the middle of submedian nervure, and a dusky one in the cell. Secondaries creamy whitish. Under surface as above, but the discal area of the primaries is suffused with fuscous, and the costa of secondaries is pale ochreous. Antennae with short cilia and bristles. Head and thorax colour of primaries; abdomen whitish.

Expanse 34 millim.

One male specimen from Chia-kou-ho, taken in July.

Habitat. WESTERN CHINA.

Genus *ÆONISTIS*.

Hübner, Verz., p. 165 (1818).

568. *Æonistis quadra*.

Noctua quadra, Linn., Syst. Nat., i, p. 511 (1758).

Bombyx quadra, Hübn., Bomb., figs. 101, 102 (1800).

Æonistis dives, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 398 (1877); Ill. Typ. Lep. Het., ii, p. 7, pl. xxii, fig. 11 (1878).

Æonistis quadra, Leech, Proc. Zool. Soc. Lond., 1888, p. 598; Hampson, Fauna Brit. Ind., Moths, ii, p. 73 (1894).

Some Japanese male specimens are rather darker than European examples, and some of the females are brighter yellow; but otherwise there is no important difference

between the individuals from each region. One female specimen in Pryer's collection is without the usual black spots on primaries, and I have seen similar varieties of the species in English collections.

Distribution. EUROPE.—AMURLAND ; COREA ; JAPAN ; SIKHIM.

569. *Æonistis nigricosta*.

Æonistis nigricosta, Leech, Proc. Zool. Soc. Lond., 1888 p. 598, pl. xxx, fig. 11.

The specimen described was in Pryer's collection, but the exact locality where it was taken was not indicated.

Habitat. JAPAN.

570. *Æonistis subnigra*, sp. n.

Primaries pale stramineous, with two black spots similar to those of female *Æ. quadra*, Linn., but the lower one is not well defined. Secondaries paler. Under surface coloured as above, but the basal area of primaries is black.

Expanse 34 millim.

One male specimen from Wa-shan, taken in July.

Habitat. WESTERN CHINA.

Genus THYSANOPTYX.

Hampson, Fauna Brit. Ind., Moths, ii, p. 74 (1894).

571. *Thysanoptyx tetragona*.

Lithosia tetragona, Walk., Cat. Lep. Het., ii, p. 510 (1854).

Teulisna tetragona, Butl., Trans. Ent. Soc. Lond., 1877, p. 355 ; Il. Typ. Lep. Het., v, p. 39, pl. lxxxvi, fig. 14 (1881).

Thysanoptyx tetragona, Hampson, Fauna Brit. Ind., Moths, ii, p. 75 (1894).

A male specimen from Wa-shan and one from Chia-ting-fu, both taken in July.

Distribution. SIKHIM ; SILHET ; NÁGAS ; NILGIRIS ; BORNEO (*Hampson*) ; WESTERN CHINA.

572. *Thysanoptyx signata*.

Lithosia signata, Walk., Cat. Lep. Het., ii, p. 495 (1854).

Teulisna signata, Kirby, Cat. Lep. Het., p. 317 (1892).

Thisanoptyx brevimacula, Alph., Rom. sur Lép., ix, p. 130, pl. xiii, fig. 5 ♀ (1897).

Occurs at Moupin, Omei-shan, Chia-kou-ho and Chang-yang, in June. *Brevimacula*, Alph., described from a female specimen taken at Ta-choui-van, is a form of *T. signata*, Walk., in which, judging from the figure, the abdominal area of the secondaries is paler than the outer area. Two of my specimens from Chang-yang have the lower spot on primaries elongated, and in one example from Moupin the upper or costal spot is absent from left primary, and very small on the right primary.

Distribution. EASTERN, WESTERN and CENTRAL CHINA.

573. *Thysanoptyx directa*, sp. n.

Primaries greyish stramineous, with a black spot on the costa beyond the middle, and an upright, elongated mark of the same colour on the inner margin. Secondaries rather yellower. Under surface yellower than above, the discal area of primaries suffused with blackish. Head stramineous; thorax and abdomen colour of primaries, but the terminal segments of the latter are yellowish and the thorax is marked with blackish.

Expanse 38 millim.

Two female specimens from Chang-yang, taken in June.
Habitat. CENTRAL CHINA.

Allied to *T. signata*, Walk., but the mark on the inner margin of primaries is narrower, and is placed more directly under the costal spot.

Genus PRABHASA.

Moore, Proc. Zool. Soc. Lond., 1878, p. 25.

574. *Prabhasa costalis*.

Prabhasa costalis, Moore, Proc. Zool. Soc. Lond., 1878, p. 26.

Moore described this species from North China. I have one specimen from Moupin.

Habitat. NORTHERN and WESTERN CHINA.

Genus LITHOSIA.

Fabr.; Hampson, Fauna Brit. Ind., Moths, ii, p. 79 (1894).

575. *Lithosia griseola*.

Bombyx griseola, Hübn., Bomb., pl. xxiii, fig. 97 (1800).

Lithosia adaneta, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 398 (1877); Ill. Typ. Lep. Het., ii, p. 6, pl. xxiii, fig. 6 (1878).

Lithosia ægrota, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 397 (1877).

Collita ægrota, Butl., Ill. Typ. Lep. Het., iii, pl. xlii, fig. 13, (1879).

Lithosia griseola, Leech, Proc. Zool. Soc. Lond., 1888, p. 599; Hampson, Fauna Brit. Ind., Moths, ii, p. 80 (1894).

Lithosia griseola, var. *amurensis*, Staud., Rom. sur Lép., vi, p. 268 (1892).

This very variable species occurs at Nikko, Oiwake, Hakone, Hakodate, Tsuruga, Gensan, Chang-yang, Moupin, Chia-ting-fu, Chia-kou-ho, and Wa-ssu-kow. Staudinger describes a form from Amurland under the name *amurensis*, and two of my examples from Japan seem to agree with this description. The descriptions of *adaneta* and *ægrota* apply rather to individual specimens than to constant forms.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; COREA; CENTRAL and WESTERN CHINA; NEPAL; SIKHIM.

[*Lithosia caniola*, Hübn. Felder (Wien. ent. Mon., vi, p. 36) records this species from Ningpo. I have not seen *L. caniola* from any part of Eastern Asia, and am inclined to suppose that the specimen referred to this species by Felder is probably a form of *L. griseola*.]

576. *Lithosia cinerea*.

Lithosia cinerea, Pouj., Bull. Soc. Ent. Fr. (6), vi, p. cl. (1886).

I have a long series from Pu-tsu-fong and Ni-tou, but no variation is exhibited. The type was from Moupin.

Habitat. WESTERN CHINA.

577. *Lithosia vetusta*.

Lithosia vetusta, Walk., Cat. Lep. Het., ii, p. 506 (1854).

I have one example from Hakone and one from Gensan. The type was from Shanghai.

Distribution. EASTERN CHINA; COREA; JAPAN.

578. *Lithosia lenta*.

Lithosia lenta, Leech, Entom., xxiii, p. 81 (1890).

The type, a male, was taken in July at Ichang, and I received another male from Chang-yang, captured in June.

Habitat. CENTRAL CHINA.

579. *Lithosia coreana*.

Lithosia coreana, Leech, Proc. Zool. Soc. Lond., 1888, p. 600, pl. xxx, fig. 13.

The type from Gensan, taken in June. I have five specimens from Kiukiang and one from Ichang, taken in June and July.

Distribution. COREA ; CENTRAL CHINA.

580. *Lithosia affineola*.

Lithosia affineola, Brem., Lep. Ost-Sib., p. 97, pl. viii, fig. 5 (1864).

Occurs at Hakodate, Kiushiu, Gensan, Chang-yang, Ichang, Moupin, and Chia-ting-fu in June and July.

Distribution. AMURLAND ; JAPAN ; KIUSHIU ; COREA ; CENTRAL and WESTERN CHINA.

581. *Lithosia japonica*.

Lithosia japonica, Leech, Proc. Zool. Soc. Lond., 1888, p. 600, pl. xxx, fig. 12.

Two specimens in Pryer's collection.

This species is closely allied to *L. depressa*, Esp., but may be distinguished therefrom by the dark secondaries.

Habitat. JAPAN.

582. *Lithosia debilis*.

Lithosia debilis, Staud., Rom. sur Lép., iii, p. 190, pl. x, fig. 12 (1887); Fixsen, op. cit., p. 331.

Described from Kultuk (Government of Irkutsk).

A nice series in Pryer's collection, comprising specimens from Yokohama, Oiwake, and Nikko. I have one ex-

ample from Gensan which seems to be referable to this species; Fixsen records specimens from Corea.

Some of the Japanese specimens only measure 22 millim. in expanse.

Distribution. CENTRAL SIBERIA; AMURLAND; COREA; JAPAN.

583. *Lithosia fumidisca*.

Lithosia fumidisca, Hampson, Fauna Brit. Ind., Moths, ii, p. 80 (1894).

I am informed by Sir George Hampson that this species has been received from Shanghai by M. l'Abbé J. de Joannis.

Distribution. SIKHIM; TENASSERIM; EASTERN CHINA (*Hampson*).

584. *Lithosia paveszens*.

Lithosia paveszens, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 398 (1877); Ill. Typ. Lep. Het., ii, pl. xxiii, fig. 5 (1878).

Lithosia lævis, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 398 (1877); Ill. Typ. Lep. Het., ii, pl. xxii, fig. 12 (1878).

Specimens in Pryer's collection from Yesso, Oiwake and Yokohama. I received one example from Chang-yang, captured in June.

This species is closely allied to *L. helveola*, Ochs. ? = *L. deplana*, Esp.

Hampson (Fauna Brit. Ind., Moths, ii, p. 84) gives *L. lævis*, Butl., as a synonym of *L. nigrifrons*, Moore.

Distribution. JAPAN; YESSO; CENTRAL CHINA.

585. *Lithosia suffusa*, sp. n.

Primaries stramineous, suffused with purplish grey on the basal three-fourths; the basal third of costa is yellowish. Secondaries stramineous. Under surface as above, but the suffusion on the primaries is blackish. Head, thorax, and terminal segments of abdomen yellowish, other portion of abdomen stramineous tinged with fuscous.

Expanse 48 millim.

Four male specimens from the north of Ta-chien-lu.

Habitat. WESTERN CHINA.

586. *Lithosia moorci*.

Katha moorei, Leech, Entom., xxiii, p. 81 (1890).

Pelusia moorci, Kirby, Cat. Lep. Het., i, p. 329 (1892).

The type of this species was from Chang-yang. I have also a specimen taken at Ningpo in July and examples from Moupin, Omei-shan, and Chia-ting-fu.

Distribution. EASTERN, CENTRAL, and WESTERN CHINA.

587. *Lithosia immaculata*.

Katha immaculata, Butl., Proc. Zool. Soc. Lond., 1880, p. 671.

Pelusia immaculata, Kirby, Cat. Lep. Het., i, p. 329 (1892).

There were specimens in Pryer's collection, probably from Yokohama; I obtained the species at Nagasaki in June and at Gensan in July.

Distribution. JAPAN; KIUSHIU; COREA.

588. *Lithosia aprica*.

Katha aprica, Butl., Cist. Ent., iii, p. 115 (1885).

Pelusia aprica, Kirby, Cat. Lep. Het., i, p. 329 (1892).

Lithosia aprica, Leech, Proc. Zool. Soc. Lond., 1888, p. 599.

Occurs at Ohoyama and Yesso, and in the Loochoo Islands.

Distribution. YESSO; JAPAN; LOOCHOO.

589. *Lithosia præcipua*.

Lithosia præcipua, Walk., Cat. Lep. Het., ii, p. 229 (1864).

Pelusia præcipua, Kirby, Cat. Lep. Het., i, p. 329 (1892).

Described from North China. I have specimens from Chang-yang, Ichang, and the province of Kwei-chow. June and July.

Distribution. NORTH, CENTRAL, and WESTERN CHINA.

590. *Lithosia nigripoda*.

Lithosia nigripoda, Brem. and Grey, Motsch. Etud. Ent., i, p. 63 (1852); Schmett. nörd. China, p. 14 (1853).

Pelusia nigripoda, Kirby, Cat. Lep. Het., i, p. 329 (1892).

Described from North China. I am not acquainted with this species.

591. *Lithosia palliatella*.

Lithosia unita, Hübn., var. *arideola*, Herr.-Schäff., Fixsen, Rom. sur Lép.; iii, p. 331 (1887).

Fixsen records the above form of *L. unita* from Corea. I have not seen an example of *Lithosia* from any part of the region here treated that I could refer to *L. palliatella*, Scop. = *unita*, Hübn.

Distribution. EUROPE.—? COREA.

592. *Lithosia cribrata*.

Lithosia cribrata, Staud., Rom. sur Lép., iii, p. 189, pl. x, fig. 11 (1887).

Pelosia cribrata, Kirby, Cat. Lep. Het., i, p. 328 (1892).

Dolgoma cribrata, Kirby, l. c., p. 332.

One specimen from Nikko in Pryer's collection; I received one from Kiushiu and two from Chang-yang. Staudinger's type was from the isle of Askold.

Distribution. AMURLAND; JAPAN; KIUSHIU; CENTRAL CHINA.

593. *Lithosia costipuncta*.

Lithosia costipuncta, Leech, Entom., xxiii, p. 82 (1890).

One male specimen taken in June at Chang-yang.

Habitat. CENTRAL CHINA.

594. *Lithosia alba*.

Lithosia alba, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 87 (1877).

Tarika alba, Kirby, Cat. Lep. Het., i, p. 322 (1892).

Systropha nivosa, Butl., Ann. and Mag. Nat. Hist., (5) iv., p. 353 (1879).

The type of *alba*, Moore, was from Shanghai, and that of *nivosa*, Butl. from Yokohama. There were specimens in Pryer's collection.

Distribution. EASTERN CHINA; JAPAN.

595. *Lithosia insolita*.

Lithosia insolita, Walk., Cat. Lep. Het., ii, p. 497 (1854).

Capissa insolita, Kirby, Cat. Lep. Het., i, p. 331 (1892).

Described from Shanghai. I am unable to identify this with any species that I have from China.

Habitat. EASTERN CHINA.

Genus TEULISNA.

Walk.; Hampson,⁷ Fauna Brit. Ind., Moths, ii, p. 86 (1894).

596. *Teulisna fimbriata*.

Tegulata fimbriata, Leech, Entom., xviii, p. 81 (1890).

The type was from Chang-yang, taken in July.

Habitat. CENTRAL CHINA.

Genus SAMERA.

Wallengren, Wien. Ent. Mon., vii, pp. 146, 147 (1863).

597. *Samera muscerda*.

Phalæna muscerda, Hufn., Berl. Mag., iii, (4) p. 400 (1767).

Samera muscerda, Kirby, Cat. Lep. Het., i, p. 321 (1892).

Specimens from Yesso and Oiwake in Pryer's collection. I met with the species at Gensan.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; COREA.

598. *Samera obtusa*.

Paidia obtusa, Herr.-Schæff, Schmett. Eur., vi, p. 53, fig. 161 (1847).

Samera obtusa, Kirby, Cat. Lep. Het., i, p. 321 (1892).

Gampola noctis, Butl., Trans. Ent. Soc. Lond., 1881, p. 8.

Paida obtrita, Staud., Rom. sur Lép., iii, p. 183, pl. x, fig. 8 (1887).

Paidina obtrita, Staud., Rom. sur Lép., vi, p. 262 (1892).

The specimens in Pryer's collection were from Yokohama; these, as I remarked in a former paper, are darker than the coloured figure of *obtrita*, Staud., but agree exactly with a specimen in the National Museum which was received from Dr. Staudinger.

"*Gampola*" *noctis*, Butl., from Tokio, is, as kindly pointed out to me by Sir George F. Hampson, certainly identical with *obtrita*, Staud., and both are referable to *obtusa*, H.-S.

Distribution. EUROPE.—AMURLAND; YESSO; JAPAN.

599. *Samera angusta*.

Paida angusta, Staud., Rom. sur Lép., iii, p. 182, pl. x, fig. 7 (1887).

Paidina angusta, Staud., Rom. sur Lép., vi, p. 260 (1892).

Six specimens taken by a native collector at Gensan in August. Possibly a form of *S. obtusa*.

Distribution. AMURLAND; COREA.

Genus *ÆMENE*.

Walk., Cat. Lep. Het., ii, p. 541 (1854).

Hampson, Fauna Brit. Ind., Moths, ii, p. 91 (1894).

600. *Æmene tæniata*.

Æmene tæniata, Fixsen, Rom. sur Lép., iii, p. 327, pl. xv, fig. 6.

Described from Corea. Fixsen states that he also has a specimen from Amurland.

Distribution. COREA; AMURLAND.

601. *Æmene punctatissima*.

Æmene punctatissima, Pouj., Bull. Soc. Ent. Fr., (6), vi, p. clix (1886).

I have a fine series, comprising specimens from Ichang, Chang-yang, Wa-shan, Omei-shan, Chia-ting-fu, Wa-ssu-kow, Che-tou, and Ni-tou. There is a good deal of variation in the markings, and some examples are heavily suffused with fuscous.

Habitat. CENTRAL and WESTERN CHINA.

602. *Æmene modesta*.

Æmene modesta, Moore, Proc. Zool. Soc. Lond., 1878, p. 34.

Of this species, which Moore described from Formosa, I have received one male specimen from Ichang, where it was captured in August, and Captain Young sent me an example from Sultanpore, Kulu.

Distribution. FORMOSA; CENTRAL CHINA; KULU.

603. *Æmene punctigera*, sp. n.

Primaries greyish white ; there are five black spots on the costa, two in the cell, and three along the course of the submedian nervure ; postmedial and submarginal lines irregular, and composed of black dots ; fringes preceded by black points. Secondaries paler, with an indistinct discal dot. Under surface of primaries suffused with fuscous, fringes paler.

Expanse 24-26 millim.

I have seven specimens from Wa-shan, Pu-tsu-fong, Chia-ting-fu, and Ichang ; taken in June and July.

Habitat. CENTRAL and WESTERN CHINA.

Allied to *Æ. modesta*, Moore.

604. *Æmene fasciata*.

Æmene fasciata, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 399 (1877) ; Ill. Typ. Lep. Het., ii, p. 7, pl. xxii, fig. 9 (1878).

The specimens in Pryer's collection were from Yokohama, Nikko, and Oiwake. I obtained the species at Hakodate in August, and my native collector in the island of Kiushiu.

Staudinger (Rom. sur Lép., vi, p. 263) refers *Æ. fasciata*, Butl., to *Æmene (Nudaria) altaica*, Lederer.

Habitat. JAPAN ; YESSO and KIUSHIU.

605. *Æmene minuta*.

Æmene minuta, Butl., Trans. Ent. Soc. Lond., 1881, p. 595.

There were specimens from Yokohama in Pryer's collection.

Habitat. JAPAN.

606. *Æmene (?) maculata*.

Siccia maculata, Leech, Proc. Zool. Soc. Lond., 1888, p. 605, pl. xxx, fig. 16.

The type was from Satsuma.

Habitat. KIUSHIU.

Genus NARASODES.

Moore, Lep. Ceyl., iii, p. 535 (1887).

607. *Narasodes punctana*.

Tospitis punctana, Walk., Cat. Lep. Het., xxviii, p. 431 (1863).

Narasodes punctana, Moore, Lep. Ceyl., iii, pl. 211, fig. 7 (1887); Hampson, Fauna Brit. Ind., Moths, ii, p. 95 (1894).

Sir George Hampson has identified examples of this species among some insects received from Shanghai by M. l'Abbé J. de Joannis.

Distribution. CEYLON; EASTERN CHINA (*Hampson*).

Genus EUGOA.

Walker, Cat. Lep. Het., xii, p. 768 (1857).

608. *Eugoa grisea*.

Eugoa grisea, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 399 (1877); Ill. Typ. Lep. Het., ii, p. 8, pl. xxiii, fig. 1 (1878).

The specimens in Pryer's collection were from Yokohama. I obtained the species at Gensan in July.

Distribution. JAPAN; COREA.

609. *Eugoa* (?) *obscura*.

Eugoa (?) *obscura*, Leech, Proc. Zool. Soc. Lond., 1888, p. 604, pl. xxx, fig. 15.

The type was in Pryer's collection, but without locality.

Habitat. JAPAN.

Genus HYPEUGOA, nov.

Hampson MS. (Type *H. flavogrisea*, sp. n.)

Proboscis aborted and minute; palpi porrect, short, and not reaching beyond the frons; antennæ of male with bristles and cilia; tibiæ with the spurs rather long; abdomen smoothly scaled.

Primaries rather narrow, the costa arched near the base, then nearly straight ; the termen obliquely rounded ; vein 2 from middle of cell, oblique ; vein 3 from cell before angle ; veins 4, 5, from angle ; 6, 7, stalked ; 8, 9, stalked ; 10, 11, free. Secondaries with vein 2 from middle of cell ; 3 from before angle ; 4, 5, from angle ; 6, 7, shortly stalked ; 8 from middle of cell.

610. *Hypcugoa flavogrisea*, sp. n.

Primaries whitish, dusted with greyish scales ; there is a broad greyish central band, limited by blackish irregular lines ; submarginal band greyish, diffuse, and dotted with blackish. Secondaries yellowish-buff, finely dusted with greyish on central and marginal areas. Under surface yellowish-buff, the discal area of primaries suffused with fuliginous. Head and thorax agree in colour with primaries, and the abdomen with secondaries.

Expanse 46 millim.

One male specimen taken by a native collector to the north of Ta-chien-lu.

Habitat. WESTERN CHINA.

Genus MILTOCHRISTA.

Hübner, Hampson, Fauna Brit. Ind., Moths, ii, p. 107 (1894).

[611. *Miltochrista miniata*.

Geometra miniata, Forst., Nov. Spec. Ins., p. 75 (1771).

Calligenia miniata, Auctt.

Miltochrista miniata, Kirby, Cat. Lep. Het., i, p. 311 (1892).

Miltochrista rosaria, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 397 (1877) ; Ill. Typ. Lep. Het., ii, pl. xxii, fig. 8 (1878).

A series in Pryer's collection comprised specimens from Yokohama, Oiwake, and Yesso. I obtained one example in Satsuma in May, one at Nagasaki in June, one at Nagahama, and two at Gensan in July. My native collector took the species at Nikko.

In var. *rosaria*, which is the only form represented in Japan and Corea, the discal area of the primaries is yellower than in the type, and the secondaries are less tinged with rosy. I have an aberrant example from Germany which has the primaries entirely yellow and other

specimens in my European series are almost identical with Japanese examples.

Distribution. EUROPE.—AMURLAND; COREA; JAPAN; YESSO.

612. *Miltochrista aberrans*.

Miltochrista aberrans, Butl., Ann. and Mag. Nat. Hist., (4), xx, p. 397 (1877); Ill. Typ. Lep. Het., ii, p. 5, pl. xxii, fig. 7 (1878).

Calligenia askoldensis, Oberth., Étud. d'Entom., v, p. 30 (1880).

Miltochrista bivittata, Butl., Cist. Ent., iii, p. 116 (1885).

Specimens from Yokohama in Pryer's collection. I have received one example from Chang-yang, where it was taken in June.

Dr. Staudinger considers *askoldensis* to be only a modification of *aberrans*, and that *bivittata* is identical with it; in this I quite concur.

Distribution. JAPAN; CENTRAL CHINA; AMURLAND.

613. *Miltochrista undulata*, sp. n.

Closely allied to *M. miniata*, from Europe, but smaller and more rosy in colour; the first black line of primaries only indicated by a dot on the costa, and the second line more deeply undulated and terminating nearer the middle of the inner margin.

Expanse 22 millim.

In some specimens the lines are very faint, and in others entirely absent.

Four males and two females, taken in June, and two males and one female, taken in August, at Chang-yang.

Habitat. CENTRAL CHINA.

614. *Miltochrista pallida*.

Calligena pallida, Brem., Lep. Ost.-Sib., p. 97, pl. viii, fig. 7 (1864).

Miltochrista pallida, Kirby, Cat. Lep. Het., i, p. 312 (1892).

I took this species at Ningpo in April, and met with it again in June at Fusan, and in July at Gensan. I have also received the species from Ningpo.

The black submarginal markings of primaries are subject to variation; in one example they are entirely absent.

Distribution. AMURLAND; COREA; NORTH-EASTERN CHINA.

615. *Miltochrista butleri*.

Miltochrista butleri, Leech, Proc. Zool. Soc. Lond., 1888, p. 603, pl. xxx, fig. 14.

I obtained one example of each sex at Nagasaki in June, and there was one specimen from Loochoo and one without locality in Pryer's collection. My native collector met with the species in the island of Kiushiu.

Distribution. JAPAN; KIUSHIU; LOOCHOO.

616. *Miltochrista rivalis*.

Miltochrista rivalis, Leech, Entom., xxiii, p. 82 (1890).

Sesapa rivalis, Kirby, Cat. Lep. Het., i, p. 311 (1892).

Appears to be not uncommon at Chang-yang and Mou-pin, and I have also specimens from Ichang and Omei-shan. Occurs in June.

Habitat. CENTRAL and WESTERN CHINA.

617. *Miltochrista inscripta*.

Sesapa inscripta, Walk., Cat. Lep. Het., ii, p. 547 (1854).

Sesapa ziczac, Walk., l. c. vii, p. 1681 (1856).

Sesapa erubescens, Butl., Trans. Ent. Soc. Lond., 1877, p. 345.

Miltochrista inscripta, Butl., Ill. Lep. Het., iii, p. 7, pl. xlii, fig. 11 (1879).

I captured one specimen at Foochau in April, and I have received examples from Gensan, Chang-yang, Ichang, and the province of Kwei-chow, taken in June.

Distribution. COREA; NORTHERN, CENTRAL, and WESTERN CHINA.

618. *Miltochrista rhodophila*.

Barsine rhodophila, Walk., Cat. Lep. Het., Suppl., i, p. 254 (1864).

Miltochrista rhodophila, Butl., Ill. Typ. Lep. Het., iii, p. 5, pl. xlii, fig. 12 (1879).

Sesapa rhodophila, Kirby, Cat. Lep. Het., i, p. 311 (1892).
Miltochrista torrens, Butl., Ann. and Mag. Nat. Hist., (5)
iv, p. 353 (1879).

I have specimens from Yokohama, Gensan, Ichang, and Wa-shan, taken in July.

Distribution. AMURLAND; JAPAN; COREA; NORTH, CENTRAL, and WESTERN CHINA.

619. *Miltochrista calamina*.

Miltochrista calamina, Butl., Ann. and Mag. Nat. Hist., (4)
xx, p. 396 (1877); Ill. Typ. Lep. Het., ii, pl. xxii,
fig. 10 (1878).

Sesapa calamina, Kirby, Cat. Lep. Het., i, p. 310 (1892).
Calligenia lutea, Staud., Rom. sur Lép., iii, p. 188 (1887);
vi, p. 265 (1892).

A series from Oiwake in Pryer's collection; I have also received specimens from Nagasaki, Nagahama, Fushiki and Hakodate. Occurs in June, July and August.

Distribution. AMURLAND; JAPAN; YESSO; KIUSHIU.

620. *Miltochrista sinica*.

Miltochrista sinica, Moore, Ann. and Mag. Nat. Hist., (4)
xx, p. 87 (1877).

Sesapa sinica, Kirby, Cat. Lep. Het., i, p. 311 (1892).
Miltochrista strigipennis, Hampson, Fauna Brit. Ind., Moths,
ii, p. 111 (1894).

I have received specimens from Chang-yang, Ichang, Omei-shan, and the province of Kwei-chow. Occurs in June and July.

Moore's type was from Shanghai.

Habitat. NORTHERN, WESTERN, and CENTRAL CHINA.

621. *Miltochrista rufa*.

Miltochrista rufa, Leech, Entom., xxiii, p. 82 (1890).

Six specimens taken in June at Chang-yang.

Habitat. CENTRAL CHINA.

622. *Miltochrista inflexa*.

Barsine inflexa, Moore, Proc. Zool. Soc. Lond., 1878, p. 29,
pl. iii, fig. 17.

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Miltochrista inflexa, Hampson, Fauna Brit. Ind., Moths, ii, p. 118 (1894).

One example from Chia-kou-ho, taken in July.

Distribution. SIKHIM (*Hampson*); WESTERN CHINA.

623. *Miltochrista striata*.

Lithosia striata, Brem. and Grey, Motsch. Etud. Ent., i, p. 63 (1852); Schmett. nörd. China, p. 14 (1853).

Miltochrista striata, Leech, Proc. Zool. Soc. Lond., 1888, p. 602.

Hypoprepia lanceolata, Walk., Cat. Lep. Het., vii, p. 1680 (1856).

Barsine striata, Kirby, Cat. Lep. Het., p. 306 (1892).

Miltochrista gratiosa, Hampson, Fauna Brit. Ind., Moths, ii, p. 118 (1894).

I obtained specimens at Nagasaki in May and at Gensan in July. There was a series from Yokohama and Oiwake in Pryer's collection, and I have received examples from Moupin, Omei-shan, Chia-ting-fu and Chow-pin-sa.

The markings are subject to considerable modification. In some female specimens the rose-coloured streaks are almost eliminated and the grey spots are very indistinct.

Distribution. Throughout the hills of INDIA, CEYLON and BURMA (*Hampson*); JAPAN; KIUSHIU; COREA; NORTHERN and WESTERN CHINA.

624. *Miltochrista pulchra*.

Miltochrista pulchra, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 396 (1877); Ill. Typ. Lep. Het., ii, pl. xxii, fig. 6 ♀ (1878).

Calligenia pulchra, var. *pulcherrima*, Staud., Rom. sur Lép., iii, p. 187 (1887).

Barsine pulchra, Kirby, Cat. Lep. Het., i, p. 306 (1892).

Miltochrista mactans, Butl., Trans. Ent. Soc. Lond., 1877, p. 340; Ill. Typ. Lep. Het., v, pl. lxxxv, fig. 13 ♂ (1881).

Specimens from Yokohama and Yesso in Pryer's collection. I have received the species from Chang-yang, and I took examples at Gensan in July.

Hampson includes this species with *M. striata* under

M. gratiosa. I think that both the former are distinct from the latter, and I cannot regard *pulchra*, Butl., as a form of *striata*, Brem. The two species last named can be readily separated from each other by the direction and character of the outer band of primaries, which in *striata* is angled instead of curved and has a projection from angle to apex.

Distribution. JAPAN; YESSO; COREA; CENTRAL CHINA.

625. *Miltochrista carnea*.

Calligenia carnea, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. cxliii (1886).

Miltochrista carnea, Kirby, Cat. Lep. Het., i, p. 312 (1892).

Occurs at Moupin, Omei-shan, Wa-shan, Chia-ting-fu, and Chia-kou-ho, in June and July.

Varies in the intensity of the markings of primaries; in some specimens these, with the exception of a spot on inner margin, are absent.

Habitat. WESTERN CHINA.

626. *Miltochrista rubricans*.

Setina rubricans, Leech, Entom., xxiii, p. 82 (1890).

A fine series, including both sexes, from Chang-yang, and one female from Ichang. June and July.

Habitat. CENTRAL CHINA.

627. *Miltochrista unipuncta*.

Setina unipuncta, Leech, Entom., xxiii, p. 82 (1890).

Since describing the two sexes of this species I have received a second male from Chang-yang, also one from Moupin and a female from Kia-ting-fu.

All these specimens agree with the female example described as the type of that sex, and it would appear therefore that reddish orange is the typical colour of the species, and that yellow is an aberrant colour.

The Western Chinese specimens are rather larger than the examples from Chang-yang.

Habitat. CENTRAL and WESTERN CHINA.

628. *Miltochrista nigrivena*, sp. n.

Primaries crimson-pink, rather paler on discal area ; there are three blackish dots on the basal area, one near the base, one above the cell and one in the interno-interspace ; a larger black spot is placed at the outer extremity of the cell, and the venation beyond is streaked with black. Secondaries rather paler. Under surface pale crimson-pink, the discal area of primaries strongly suffused with blackish.

Expanse 32 millim.

One male specimen from Omei-shan, taken in June or July.

Habitat. WESTERN CHINA.

629. *Miltochrista flexuosa*, sp. n.

Primaries crimson-pink, paler on discal area ; the curved anti-medial and very strongly denticulated post-medial lines blackish, the latter followed by black spots opposite the extremity of each tooth ; medial line waved and brownish ; just beyond this is a black longitudinal line almost parallel with the costa, but sharply angled below the point of origin which is on the costa itself ; there are some black marks on basal half of the wing and also in the outer portion of the discal cell. All the markings are more or less surrounded or bordered with pale yellowish. Secondaries same colour as the discal area of primaries, outer margin crimson. Fringes whitish. Under surface paler than above ; the primaries are clouded with black on basal half of the costal area, and also on the venation beyond the cell.

Allied to *M. nigrivena*, but apart from differences on the upper surfaces, the under surface of primaries is much less suffused with black.

Expanse 28-30 millim.

One male specimen from Ni-tou, one from Moupin, and a female from Omei-shan. June and July.

Habitat. WESTERN CHINA.

630. *Miltochrista acerba*, sp. n.

Primaries orange-red with a few isolated dusky dots on the neuration representing transverse lines ; the venation towards the outer margin is faintly streaked with blackish. Secondaries paler. Under surface of all the wings paler than above and without markings.

Head and thorax agree in colour with the primaries, and the abdomen is similar in colour to the secondaries.

Expanse 34 millim.

One male specimen taken in June at Moupin.

Habitat. WESTERN CHINA.

631. *Miltochrista fasciata*, sp. n.

Primaries creamy white ; a black spot at the base and one at end of the cell ; there are three black transverse lines about the median area of the wing, the first two are rather curved, the third straight, and all are more or less interrupted and very close together ; beyond the discal spot there is a bidentate black transverse line and the venation is streaked and spotted with black. Secondaries creamy white, yellower towards abdominal margin, venation is marked with black on outer margin. Under surface of primaries similar to above, but the secondaries have a black submarginal line.

Head and thorax yellowish ; abdomen dusky with a yellowish tinge.

Expanse 24 millim.

One female specimen from Omei-shan, taken in June or July.

Allied to *M. radians*, Moore, but distinguished from that species by the different character of transverse lines.

Habitat. WESTERN CHINA.

632. *Miltochrista decussata*.

Miltochrista decussata, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 87 (1877).

Bursine decussata, Kirby, Cat. Lep. Het., i, p. 307 (1892).

Described from Shanghai. The species is somewhat similar to *M. radians*, Moore, from Calcutta.

Habitat. EASTERN CHINA.

633. *Miltochrista artaxidia*.

Miltochrista artaxidia, Butl., Trans. Ent. Soc., 1881, p. 8.

Nudaria nubilosa, Staud., Rom. sur Lép., iii, p. 186, pl. x, fig. 10 (1887).

Lyclene artaxidia, Kirby, Cat. Lep. Het., i, p. 305 (1892).

Nudina artaxidia, Staud., Rom. sur Lép., vi, p. 264 (1892).

Specimens from Ohoyama in Pryer's collection, I took one example at Gensan in July, and I have received one from Moupin, where it was taken in June.

Distribution. JAPAN; COREA; WESTERN CHINA; AMURLAND.

634. *Miltochrista carnipicta*.

Ammatho carnipicta, Butl., Trans. Ent. Soc. Lond., 1877, p. 342.

Described from Mongolia. I have one male specimen from Omei-shan, taken in June or July.

Distribution. WESTERN CHINA; MONGOLIA.

635. *Miltochrista delincata*.

Hypoprepia delincata, Walk., Cat. Lep. Het., ii, p. 487 (1854).

Ammatho figuratus, Walk., Cat. Lep. Het., iii, p. 759 (1855).

Ammatho delincata, Kirby, Cat. Lep. Het., i, p. 308 (1892).

Cyme chinensis, Feld Wien. Ent. Mon., vi, p. 36 (1862).

Ammatho fuscescens, Butl., Trans. Ent. Soc. Lond., 1877, p. 343.

This very variable species was met with by my collectors in all the localities in Western China that they visited, and also at Chang-yang and Ichang.

Fuscescens, Butl., is a strongly suffused form.

Distribution. NORTHERN, CENTRAL, and WESTERN CHINA; MONGOLIA.

636. *Miltochrista palmata*.

Lyelene palmata, Moore, Proc. Zool. Soc. Lond., 1878, p. 31, pl. iii, fig. 5.

Miltochrista palmata, Hampson, Fauna Brit. Ind., Moths, ii, p. 110 (1894).

The type was from North-east Bengal. I have three specimens from Chia-ting-fu, where they were captured in June or July; these are rather larger than Indian examples.

Distribution. SIMLA; KÁNGRA; ASSAM (*Hampson*); WESTERN CHINA.

Genus SETINOCHROA.

Felder, Reise Novara, Lep., iv, pl. 106, fig. 16 (1874).

637. *Setinochroa sanguinea*.

Setinochroa sanguinea, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 87 (1877).

A nice series, including both sexes, from Chang-yang, and one female specimen from Ichang. June and August.

The type was from Shanghai.

Habitat. EASTERN and CENTRAL CHINA.

Genus SETINA.

Schrank, Fauna Boica, ii (2), p. 165 (1802); Stephens, Ill. Brit. Ent. Haust., ii, p. 98 (1829).

638. *Setina flava*.

Setina flava, Brem. and Grey, Motsch. Etud. Ent., i, p. 63 (1852); Schmett., nörd. China, p. 15 (1853); Lep., Ost.-Sib., pl. viii, fig. 6 (1864).

Setina sinensis, Walk., Cat. Lep. Het., ii, p. 520 (1854).

Setina ochracea, Led., Verh., Zool.-bot. Ver. Wien., 1855, p. 115, pl. i, fig. 4.

Stigmatophora flava, Leech, Proc. Zool. Soc. Lond., 1888, p. 601.

Setina leacrita, Swinh., Ann. and Mag. Nat. Hist., (6) xiv, p. 438 (1894).

Specimens were obtained by myself at Hakodate, Sakata and Gensan, and there were examples from Oiwake and Yesso in Pryer's collection. In his "Catalogue," Pryer gives Yokohama as a locality for *S. sinensis*, Walk.

I have received the species from Moupin, Omei-shan, Wa-shan, Chia-ting-fu, Chia-kou-ho, Ichang, Chang-yang, and Ningpo. Occurs in June and July.

Varies in depth of colour and also in the definition of the black spots.

Distribution. ALTAI; AMURLAND; JAPAN; YESSO; COREA; NORTHERN, WESTERN and CENTRAL CHINA.

639. *Setina calamaria*.

Setina calamaria, Moore, Proc. Zool. Soc. Lond., 1888, p. 392.

Setina (?) *punctata*, Elwes, Proc. Zool. Soc. Lond., 1890, p. 389, pl. xxxii, fig. 18.

I took one example at Foochau in April, and I have received specimens from Moupin, Ta-chien-lu, Ni-tou, and Chia-kou-ho; taken in June and July. All these are without marking other than the basal dot and the spot at end of cell on primaries. The species appears to be quite distinct from *S. dasara*, Moore, with which Hampson unites it (Fauna Brit. Ind., Moths, ii, p. 115).

Distribution. INDIA; EASTERN and WESTERN CHINA.

640. *Setina dasara*.

Setina dasara, Moore, Cat. Lep. Mus., E.I.C., ii, p. 303 (1859); Butl., Ill. Typ. Lep. Het., vii, pl. xxxii, figs. 7, 8 (1889).

Setina nebulosa, Moore, Proc. Zool. Soc., Lond., 1878, p. 35.

Mitochondria humilis, Hampson, Fauna Brit. Ind., Moths, ii, p. 115 (1894).

I received specimens from Ta-chien-lu and Omei-shan; these agree with the form described as *nebulosa*, Moore.

Distribution. PUNJAB; SIKHIM; NÁGAS; NILGIRIS MOULMEIN; JAVA (*Hampson*); WESTERN CHINA.

641. *Setina modesta*, sp. n.

Primaries yellow, with a black dot at the base and a larger one at the outer end of the cell, between these there is a dot towards costa and one below it above inner margin; a submarginal series of black spots is curved outwards from costa to vein 4, thence recurved to inner margin. Secondaries paler, without marking. Under surface similar to above, but the black spots are absent towards inner margin of primaries.

Head and thorax colour of primaries, abdomen colour of secondaries.

Expanse ♂ 32 millim, ♀ 36 millim.

One male specimen and two females from the province of Kwei-chow, taken in June or July.

There is a very similar, unnamed, example from Pekin in the National collection at South Kensington, but this is without spots on basal area.

Habitat. NORTH-WESTERN CHINA.

642. *Setina griseata*, sp. n.

Pale brownish grey. Primaries have a black spot at the base and one at the outer extremity of the cell; there are two transverse series

of black spots, the first (subbasal) is slightly curved, and the second (submarginal) is irregular ; there is also a transverse, dusky, medial band. Fringes slightly paler, those of primaries preceded by black dots. Under surface of primaries fuliginous, paler towards outer margin. Thorax brownish grey spotted with black.

Expanse 40 millim.

Ten male specimens and one female example from Wa-ssu-kow, taken in July.

Habitat. WESTERN CHINA.

643. *Setina* (?) *nictitans*.

Lithosia nictitans, Brem. and Grey, Schmett. nörd. China, p. 14 (1853).

Setina (?) *nictitans*, Kirby, Cat. Lep. Het., i, p. 358 (1892).

This species, with which I am not acquainted, was described from Pekin.

Habitat. NORTH CHINA.

Genus STIGMATOPHORA.

Staudinger, Stett. Ent. Zeit., xlii, p. 399 (1881).

644. *Stigmatophora micans*.

Setina micans, Brem. and Grey, Motsch. Etud. Ent., i, p. 26 (1852); Schmett., nörd. China, p. 15 (1853).

Stigmatophora micans, Staud., Stett. Ent. Zeit., xlii, p. 400 (1881); Kirby, Cat. Lep. Het., i, p. 259 (1892).

Setina albosericea, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 87 (1877).

I obtained a series at Gensan and one example at Fusan. July and August.

Distribution. CENTRAL ASIA ; AMURLAND ; COREA ; NORTH CHINA.

Genus NUDARIA.

Haw. ; Hampson, Fauna Brit. Ind., Moths, ii, p. 122 (1894).

645. *Nudaria mundana*.

Tortrix mundana, Linn., Faun. Suec., p. 349 (1761).

Bombyx nuda, Hübn., Bomb., figs. 63, 64 (1800).

Nudaria mundana, Steph., Ill. Brit. Ent. Haust., ii, p. 83 (1829).

One example from Gifu and one from Yesso in Pryer's collection.

Distribution. EUROPE.—YESSO; JAPAN.

646. *Nudaria muscula*.

Nudaria muscula, Staud., Rom. sur Lép., iii, p. 185, pl. x, figs. 9 *a*, *b* (1887).

Nudaria senex, Leech, Proc. Zool. Soc. Lond., 1888, p. 605.

Four male and three female specimens from Oiwake in Pryer's collection. These specimens, which I formerly referred to *N. senex*, are rather paler in colour than the figure of *N. muscula*, but they agree in every other respect.

Distribution. AMURLAND; JAPAN.

647. *Nudaria apicalis*.

Setina apicalis, Walk., Cat. Lep. Het., ii, p. 521 (1854).

Nudaria apicalis, Kirby, Cat. Lep. Het., i, p. 361 (1892); Hampson, Fauna Brit. Ind., Moths, ii, p. 123 (1894).

I do not know this species, which probably comes from Southern China.

Distribution. CHINA; BURMA (*Hampson*).

Subfamily NYCTEOLINÆ.

Genus SINNA.

Walker, Cat. Lep. Het., xxxii, p. 641 (1865).

648. *Sinna extrema*.

Deiopeia extrema, Walk., Cat. Lep. Het., ii, p. 573 (1854).

Teinopyga reticularis, Feld., Reise Nov. Lep., iv. pl. cvi, fig. 18 (1875).

Sinna fentoni, Butl., Trans. Ent. Soc. Lond., 1881, p. 8; Cist. Ent., iii, p. 129 (1885).

Sinna clara, Butl., *l. c.* (1881).

Sinna ornatissima, Alph., Rom. sur Lép., ix, p. 131, pl. ix, fig. 9 ♀ (1897).

Several specimens in Pryer's collection, some of which were from Yesso. I obtained the species at Hakodate in August, and I have received examples from Chang-yang, Ichang, Moupin, Wa-shan, Omei-shan, and Wa-ssu-kow.

Some of the Chinese and also one or two of the Hakodate specimens agree with the figure of *S. ornatissima*, Alph. The types of *fentoni*, Butl., and *clara*, Butl., were from Tokio, and there were examples agreeing with these, together with intermediate forms in Pryer's collection.

Distribution. AMURLAND; JAPAN; YESSO; EASTERN, CENTRAL, and WESTERN CHINA.

Genus ARIOLICA. ♀

Walker; Hampson, Fauna Brit. Ind., Moths, ii, p. 129 (1894).

649. *Ariolica pulchella*.

Chionomera pulchella, Elwes, Proc. Zool. Soc., 1890, p. 387, pl. xxxii, fig. 15; Kirby, Cat. Lep. Het., i, p. 284 (1892).

Ariolica pulchella, Hampson, Fauna Brit. Ind., Moths, ii, p. 130 (1894).

Ten specimens from Omei-shan, and three from Chia-ting-fu. Occurs in June and July.

Distribution. SIKHIM; E. PEGU (*Hampson*); WESTERN CHINA.

650. *Ariolica argentea*.

Chionomera argentea, Butl., Trans. Ent. Soc. Lond., 1881, p. 18; Kirby, Cat. Lep. Het., i, p. 284 (1892).

I received a fine series from Mr. Manley of Yokohama, and one or two examples taken at Nikko by a native collector. The species is also recorded from Tokio and Fusi-yama.

Habitat. JAPAN.

Genus TYANA.

Walker, Cat. Lep. Het., xxxv, p. 1776 (1866).

651. *Tyana pustulifera*.

Tyana pustulifera, Walk., Cat. Lep. Het., xxxv, p. 1773 (1866); Butl., Ill. Typ. Lep. Het., vi, pl. cv, fig. 7 (1886).

One male specimen from Omei-shan, and two female examples from Pu-tsu-fong. These are probably referable to this species.

Distribution. NEPAL (*Hampson*); WESTERN CHINA.

Genus HALIAS.

Treitschke; *Hampson*, Fauna Brit. Ind., Moths, ii, p. 132 (1894).

652. *Halias prasinana*.

Tortrix prasinana, Linn., Faun. Succ., p. 342 (1761).

Halias prasinana, *Hampson*, Fauna Brit. Ind., Moths, ii, p. 132 (1894).

Hylophila sylpha, Butl., Ill. Typ. Lep. Het., iii, p. 10, pl. xliii, fig. 10 (1879).

Hylophila prasinana, Leech, Proc. Zool. Soc. Lond., 1888, p. 606.

Occurs at Yokohama and Oiwake; there were two specimens in Pryer's collection.

Distribution. EUROPE.—AMURLAND; JAPAN.

653. *Halias magnifica*.

Hylophila magnifica, Leech, Entom., xxiii, p. 83 (1890).

Described from a specimen received from Chang-yang, where it was taken in May.

Habitat. CENTRAL CHINA.

654. *Halias* (?) *buddhæ*.

Hylophila buddhæ, Alph., Rom. sur Lép., ix, p. 132, pl. ix, fig. 8 (1897).

The type of this species, a male, was taken in May at Da-bo-sian in the province of Sé-Tchouen.

Habitat. WESTERN CHINA.

Genus EARIAS.

Hübner; *Hampson*, Fauna Brit. Ind., Moths, ii, p. 132 (1894).

655. *Earias chromataria*.

Earias chromataria, Walk., Cat. Lep. Het., xxvii, p. 204 (1863); Hampson, Fauna, Brit. Ind., Moths, ii, p. 133 (1894).

Earias limbana, Snellen, Tijdschr. Ent., xxii, p. 97, pl. viii, fig. 2 (1879).

There was a nice series from Yokohama in Pryer's collection; I took the species at Gensan in July, and have received it from Ichang and Moupin.

Distribution. Throughout AFRICA, INDIA, and CEYLON (Hampson); JAPAN; COREA; CENTRAL and WESTERN CHINA.

656. *Earias roseifera*.

Earias roseifera, Butl., Trans. Ent. Soc. Lond., 1881, p. 18.

Specimens from Yokohama and Gifu in Pryer's collection, and one from Oiwake; the latter has the whole of the central area of primaries suffused with pink. The type was from Tokio.

Habitat. JAPAN.

657. *Earias pudicana*.

Earias pudicana, Staud., Rom. sur Lép., iii, p. 174, pl. viii, fig. 10 (1887).

I took this species at Ningpo in April, at Nagasaki in May, and at Tsuruga in July; there were some specimens in Pryer's collection.

Distribution. AMURLAND; JAPAN; KIUSHIU; NORTH CHINA.

Genus GABALA.

Walker, Cat. Lep. Het., xxxiv, p. 1220 (1865).

658. *Gabala argentata*.

Gabala argentata, Butl., Ill. Typ. Lep. Het., ii, p. 56, pl. xxxix, fig. 3 (1878).

There were a number of specimens in Pryer's collection, but without exact locality. I met with the species in Satsuma in May, at Nagasaki in June, and at Fushiki in July; and I have received it from Gensan and Chowpin-sa.

Distribution. JAPAN; KIUSHIU; COREA; WESTERN CHINA.

Genus SIGLOPHORA.

Butler, Proc. Zool. Soc. Lond., 1892, p. 123.

659. *Siglophora sanguinolenta*.

Chionomera sanguinolenta, Lep. Atk., p. 285 (1888).

Siglophora sanguinolenta, Hampson, Fauna Brit. Ind.,
Moths, ii, p. 135 (1894).

One specimen taken by a native collector at Omei-shan
in June or July.

Distribution. SIKHIM (*Hampson*) ; WESTERN CHINA.

660. *Siglophora* (?) *ferruginea*, sp. n.

Somewhat similar to *S. sanguinolenta*, Moore, but the markings of primaries are ferruginous brown in colour, and the internal edge of the outer half is angulated and extends along costa to within one-fourth of the base. Secondaries whitish, tinged with yellow merging into rusty brown on outer marginal area. Under surface silky white, tinged with pale purplish brown on outer marginal area of primaries.

Expanse 24 millim.

One male specimen from the island of Kiushiu.

There is a deep depression, hidden by tufts of yellow and ferruginous-brown hairs, just below the middle of costa. As this is not a character of *Siglophora*, it is possible that a new genus will have to be made for the species now placed provisionally in this genus.

Habitat. KIUSHIU.

Subfamily NOLINÆ.

Genus NOLA.

Leach ; Hampson, Fauna Brit. Ind., Moths, ii, p. 138
(1894).

661. *Nola fumosa*.

Nola fumosa, Butl., Ill. Typ. Lep. Het., iii, p. 9, pl. xliii,
fig. 2 (1879).

Nola strigulosa, Staud., Rom. sur Lép., iii, p. 180, pl. x,
fig. 4 (1887) ; *op. cit.*, vi, p. 256 (1892).

A series from Yokohama in Pryer's collection. I took specimens at Fushiki in July.

Distribution. AMURLAND ; JAPAN ; COREA.

662. *Nola flexuosa*.

Nola flexuosa, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. clxvii, (1886).

Described from a female specimen taken by M. l'Abbé A. David at Moupin.

Habitat. WESTERN CHINA.

663. *Nola gigas*.

Nola gigas, Butl., Ann. and Mag. Nat. Hist., (5) xii, p. 274 (1884).

There were four specimens in Pryer's collection.

Habitat. YESSO.

664. *Nola confusalis*.

Raescia confusalis, Herr.-Sch., Schmett. Eur., ii, p. 164 (1851).

Nola cristulalis, Dup., Hist. Nat. Lép., viii, pl. cccxxvii, figs. 6, 7 (1831).

Nola confusalis, Hampson, Fauna Brit. Ind., Moths, ii, p. 140 (1894).

Pryer obtained this species at Oiwake and Yokohama, and I have received two specimens from Chang-yang.

Distribution. EUROPE.—AMURLAND; JAPAN; CENTRAL CHINA; SIKHIM.

665. *Nola costimacula*.

Nola costimacula, Staud., Rom. sur Lép., iii, p. 182, pl. x, fig. 6 (1887).

There was one example in Pryer's collection without exact locality.

Distribution. AMURLAND and JAPAN.

666. *Nola centonalis*.

Pyralis centonalis, Hübn., Pyral., fig. 15 (1796).

Glaphyra atomosa, Brem., Bull. de l'Acad. Pétersb., 1861, iii, Lep. Ost.-Sib., p. 55, pl. v, fig. 16 (1864).

Nola arugula, Hübn.; Kirby, Cat. Lep. Het., i, p. 374 (1892).

Nola centonalis, Hb. var. *a. atomosa*, Brem.; Alph., Rom. sur Lép., iii, p. 327 (1887).

Occurs in Japan at Yokohama and Oiwake. I took the species at Gensan and Fusan.

Nearly all these specimens agree with the pale form described by Bremer as *atomosa*.

Distribution. EUROPE.—AMURLAND; JAPAN; COREA; NORTH CHINA.

667. *Nola ceylonica*.

Nola ceylonica, Hampson, Ill. Typ. Lep. Het., ix, p. 88, pl. clviii, fig. 13 (1893); Fauna Brit. Ind., Moths, ii, p. 141 (1894).

Examples of this species (and also of *N. pumila*, Snellen) were noted by Sir George Hampson among the insects received by M. l'Abbé J. de Joannis from Shanghai.

Distribution. CEYLON; EASTERN CHINA.

668. *Nola albulalis*.

Pyrallis albulalis, Hübn., Pyral., fig. 14 (1796).

Nola albula, Den. and Schiff.; Kirby, Cat. Lep. Het., i, p. 374 (1892).

I took a specimen in Satsuma in May, and one at Gensan in June. There was one example from Oiwake in Pryer's collection.

Distribution. EUROPE.—AMURLAND; JAPAN; KIUSHIU; COREA.

669. *Nola longiventris*.

Nola longiventris, Pouj., Bull. Soc. Ent. Fr. (6), vi, pl. cli, (1886).

Poujade's type was a male specimen taken by M. l'Abbé David at Moupin.

Habitat. WESTERN CHINA.

670. *Nola minutalis*.

Nola minutalis, Leech, Proc. Zool. Soc. Lond., 1888, p. 607 pl. xxx, fig. 17.

Described from an example of each sex. These specimens were in Pryer's collection, but the exact locality from which they came was not indicated.

The species comes very near to *N. subchlamydula*, Staud., from South Europe, but it is a much smaller insect, and the markings are narrower.

Habitat. JAPAN.

671. *Nola triangulalis*.

Nola triangulalis, Leech, Proc. Zool. Soc. Lond., 1888, p. 608, pl. xxxi, fig. 12.

Described from a specimen taken by myself in Satsuma in May.

Habitat. KIUSHIU.

672. *Nola flexilineata*.

Nola flexilineata, Hampson, Journ. Bomb. Nat. Hist. Soc., xi, p. 440 (1898).

Described from a specimen from Khásis in the National Collection at South Kensington.

I have one example of the species from Omei-shan and two from Foochau; the latter were obtained by myself in April, and the former was taken in June or July.

Distribution. KHÁSIS (*Hampson*); WESTERN and SOUTHERN CHINA.

673. *Nola candida*.

Nola candida, Butl., Ill. Typ. Lep. Het., iii, p. 9, pl. xliii, fig. 3 (1879).

Argyrophyes candida, Kirby, Cat. Lep. Het., i, p. 378 (1892).

I obtained specimens at Ningpo in April; there was a series from Yokohama in Pryer's collection, and I have four examples from Ichang; the latter were taken in August.

Dr. Staudinger (Rom. sur Lép., vi, p. 258) describes an allied species, *N. candidalis*, from Amurland.

Distribution. JAPAN; NORTHERN and CENTRAL CHINA.

674. *Nola microphasma*.

Nola microphasma, Butl., Cist. Ent., iii, p. 117 (1885).

Lebena microphasma, Kirby, Cat. Lep. Het., i, p. 379 (1892).

Five specimens from Yokohama in Pryer's collection (Nos. 86 and 90 Cat.).

Habitat. JAPAN.

675. *Nola* (?) *maculata*.

Nudaria maculata, Pouj., Bull. Soc. Ent. Fr. (6), vi, p. cl. (1886).

One example from Chia-kou-ho. The type was from Moupin.

Habitat. WESTERN CHINA.

Genus MIMERASTRIA.

Butl., Ann. and Mag. Nat. Hist., (5) vii, p. 236 (1881).

676. *Mimerastria mandschuriana*.

Erastria mandschuriana, Oberth., Etud. d'Entom., v, p. 83, pl. ii, fig. 9 (1880).

Nola mandschuriana, Leech, Proc. Zool. Soc. Lond., 1888, p. 609.

Mimerastria mandschuriana, Butl., Ann. and Mag. Nat. Hist., (5) vii, p. 236 (1881).

Nola albula, Hb., var. *a. mandschurica*, Oberth.; Fixsen, Rom. sur Léop., iii, p. 327 (1887).

Two specimens in Pryer's collection, one of which is from Oiwake.

Oberthür's type was from the Isle of Askold.

Distribution. AMURLAND; JAPAN: COREA.

Family AGARISTIDÆ.

Genus EUSEMIA.

Dalm.; Hampson, Fauna Brit. Ind., Moths, ii, p. 149 (1894).

677. *Eusemia lectrix*.

Noctua lectrix, Linn., Mus. Ulr., p. 389 (1764).

Bombyx lectrix, Cram., Pap. Exot., ii, pl. excii, fig. C (1779); Don., Ins. China, pl. xliii, fig. 2 (1798).

Episteme lectrix, Kirby, Cat. Lep. Het., i, p. 26 (1892).

Eusemia lectrix, Hampson, Fauna Brit. Ind., Moths, ii, p. 149 (1894).

My collectors met with this species at Chang-yang and in most of the localities that they visited in Western China.

There is a good deal of variation in the size of the medial spots on primaries, and in two or three examples these are united, whilst in two others the upper medial spot and the spot at basal end of the cell are confluent.

Habitat. CHINA.

678. *Eusemia irenea*.

Eusemia irenea, Boisd., Revue et Mag. de Zool., 1874, p. 84; Hampson, Fauna Brit. Ind., Moths, ii, p. 153 (1894).

Eusemia distincta, Butl., Ann. and Mag. Nat. Hist., (4) xv, p. 140 (1875); Ill. Typ. Lep. Het., v, p. 17, pl. lxxxii, fig. 3 (1881).

Specimens were received from Moupin and Omei-shan, where they were obtained in June and July.

Alphéraky (Rom. sur Léop., ix, p. 126) records *E. irenea* from Tâ-tsen-loû, also one male example from the Kham country, the latter taken in June.

Possibly only forms of *E. lectrix*, Linn.

Distribution. SIKHIM; KHÁSIS; NÁGAS; SUMATRA (*Hampson*); WESTERN CHINA.

679. *Eusemia amatrix*.

Eusemia amatrix, Westw., Cab. Orient. Ent., p. 68, pl. xxxiii, fig. 4 (1848); Hampson, Fauna Brit. Ind., Moths, ii, p. 149 (1892).

Episteme amatrix, Kirby, Cat. Lep. Het., i, p. 28 (1892).

Eusemia aruna, Moore, Cat. Lep. E.I.Co., p. 288 (1859).

One male specimen from Chia-ting-fu, and one from Omei-shan, both taken in June or July.

Distribution. SIKHIM; WESTERN CHINA.

680. *Eusemia adulatrix*.

Eusemia adulatrix, Koll., Hügel's Kasch., iv, p. 464, pl. xx, fig. 1 (1848); Hampson, Fauna Brit. Ind., Moths, ii, p. 152 (1894).

Episteme adulatrix, Kirby, Cat. Lep. Het., i, p. 26 (1892).

I have specimens, taken in June or July, from Moupin, Omei-shan, and the province of Kwei-chow.

Distribution. The whole of INDIA and BURMA (*Hampson*); WESTERN CHINA.

Genus CHELONOMORPHA.

Motsch., Etud. Ent., ix, p. 30 (1860).

681. *Chelonomorpha japona*.

Chelonomorpha japona, Motsch., Etud. Ent., p. 30 (1860).
Eusemia villicoides, Butl., Ann. and Mag. Nat. Hist., (4)
 xv, p. 141, pl. xiii, fig. 2 (1875).

Recorded by Pryer from Yesso, Nikko, and Nambu.
 It is common at Hakodate in June and July, and I have
 one specimen from Kiukiang.

Distribution. JAPAN; YESSO; CENTRAL CHINA.

Genus PHALÆNOIDES.

Lewin, Lep. N. S. Wales, p. 2 (1822); Hampson, Fauna
 Brit. Ind., Moths, ii, p. 154 (1894).

682. *Phalænoides vithoroides*.

Eusemia vithoroides, Leech, Entom., xxiii, p. 110 (1890);
 Oberth., Etud. d'Entom., xvi, p. 8, pl. i, fig. 4 (1892).
Episteme vithoroides, Kirby, Cat. Lep. Het., i, p. 29 (1892).

The type was from Chang-yang. I have received
 specimens from Wa-shan, Wa-ssu-kow, and Pu-tsu-fong.
 Occurs in June and July. Oberthür records the species
 from the country to the north of Tâ-Tsien-Loû.

Habitat. CENTRAL and WESTERN CHINA.

Genus ZALISSA.

Zalissa, Walker, Cat. Lep. Het., xxxiii, p. 936 (1865);
 Hampson, Fauna Brit. Ind., Moths, ii, p. 155 (1894).
Seudyra, Stretch, Cist. Ent., ii, p. 19 (1875).

683. *Zalissa venusta*.

Seudyra venusta, Leech, Proc. Zool. Soc. Lond., 1888,
 p. 614, pl. xxxi, fig. 2.

Described from a Gensan specimen. The species also
 occurs at Chang-yang and Ta-chien-lu. July.

Distribution. COREA; CENTRAL and WESTERN CHINA.

684. *Zalissa flavida*.

Seudyra flavida, Leech, Entom., xxiii, p. 110 (1890).

The type and two cotypes were from Chang-yang.
 Since describing the species I have received specimens

from Moupin, Wa-ssu-kow, Chow-pin-sa, and Chia-kou-ho. These Western examples are in finer condition than the three from Central China, but are identical in pattern.

Habitat. CENTRAL and WESTERN CHINA.

685. *Zalissa mandarina*.

Seudyra mandarina, Leech, Entom., xxiii, p. 110 (1890).

The type, a male and the only example of the species that I have seen, was from Chang-yang, where it was taken in July.

Habitat. CENTRAL CHINA.

686. *Zalissa subalba*.

Seudyra subalba, Leech, Entom., xxiii, p. 110 (1890).

Five male specimens from Chang-yang, and one example of the same sex from Ichang.

Habitat. CENTRAL CHINA.

687. *Zalissa noctuina*.

Seudyra noctuina, Butl., Ent. Mo. Mag., xiv, p. 206 (1878);
Ill. Typ. Lep. Het., ii, p. 3, pl. xxii, fig. 1 (1878).

A fine series from Yokohama and Yesso in Pryer's collection; the species has been recorded from Nikko, Oiwake and Hakodate. June and July.

Habitat. JAPAN and YESSO.

688. *Zalissa subflava*.

Seudyra subflava, Moore, Ann. and Mag. Nat. Hist., (4) xx,
p. 85 (1877).

Zalissa jankowskii, Alph., Rom. sur Lép., ix, p. 151, pl. xi,
fig. 20 (1897).

There was a short series from Yokohama in Pryer's collection, and I took one example at Gensan in July. Moore's type was from Chekiang; and I have specimens from Ichang and the province of Kwei-chow, the latter taken in July and August. Alphéraky re-describes this species from Sidemi. The differences he refers to as separating his *jankowskii* from *subflava* do not hold good.

Distribution. AMURLAND; JAPAN; COREA; EASTERN, CENTRAL, and WESTERN CHINA.

688A. *Zalissa albifascia*.

Zalissa albifascia, Walk., Cat. Lep. Het., xxxiii, p. 933 (1865); Hampson, Fauna Brit. Ind., Moths, ii, p. 157 (1894).

Distribution. NORTH CHINA; SIKHIM; CANARA; MOULMEIN; RANGOON; ANDAMANS (*Hampson*).

Genus MIMUSEMIA.

Butl., Ann. and Mag. Nat. Hist., (4) xv, p. 397 (1875).

689. *Mimusemia persimilis*.

Mimusemia persimilis, Butl., Ann. and Mag. Nat. Hist., (4) xv, p. 397 (1875); Ill. Typ. Lep. Het., ii, pl. xxii, fig. 2 (1878).

There was a series in Pryer's collection from Oiwake and Yesso. I obtained specimens at Gensan in July, and have received one from Omei-shan. Staudinger (Rom. sur Lép., vi, p. 275) records the species from Suifun.

Distribution. AMURLAND; JAPAN; YESSO; COREA; WESTERN CHINA.

Genus SYFANIA.

Oberth., Etud. d'Entom., xviii, p. 19 (1893).

690. *Syfanina bieti*.

Agarista bieti, Oberth., Bull. Soc. Ent. Fr., (6) v, p. cccxxviii (1886); Etud. d'Entom., xi, p. 29, pl. ii, fig. 12 (1886).
Androloma? bieti, Kirby, Cat. Lep. Het., i, p. 35 (1892).

A long series, comprising specimens from Ta-chien-lu, Che-tou and How-kow. Occurs in June and July.

Habitat. WESTERN CHINA.

691. *Syfanina déjeani*.

Syfanina déjeani, Oberth., Etud. d'Entom., xviii, p. 19, pl. v, fig. 68 (1893).

Two male specimens taken at Ta-chien-lu in July.

Habitat. WESTERN CHINA.

692. *Syfanina giraudeaui*.

Syfanina giraudeaui, Oberth., Etud. d'Entom., xviii, p. 19, pl. v, fig. 74 (1893).

One female specimen from How-kow and one from Wassu-kow, both taken in July. Oberthür records the species from Oua-Se, Yu-Tong and Kitchang-Kow.

Habitat. WESTERN CHINA.

693. *Syfanina oberthuri*.

Syfanina oberthuri, Alph., Iris, viii, p. 184 (1895); Rom. sur Lép., ix, p. 126, pl. ix, fig. 5 (1897).

Described from the Kham country.

Differs chiefly from *S. giraudeaui*, Oberth., in having the white spots of secondaries confluent; possibly only a form of that species.

Habitat. NORTH-WESTERN CHINA.

694. *Syfanina dubernardi*.

Syfanina dubernardi, Oberth., Etud. d'Entom., xix, p. 21, pl. viii, fig. 70 (1894).

Described by Oberthür from Tchang-kou.

Habitat. WESTERN CHINA.

APPENDIX

Family NOTODONTIDÆ.

Genus STENOLOBA.

Staudinger, Rom. sur Lép., vi, p. 381 (1892).

101. *Stenoloba jankowskii*.

Dichagyris jankowskii, Oberth., Etud. d'Entom., x, p. 28, pl. iii, fig. 5 (1884).

Edema nivilinca, Leech, Proc. Zool. Soc. Lond., 1888, p. 638, pl. xxxii, fig. 1; Trans. Ent. Soc. Lond., 1898, p. 300.

Stenoloba jankowskii, Staud., Rom. sur Lép., vi, p. 381 (1892).

Distribution. AMURLAND; ASKOLD; JAPAN.

122A. *Stauropus nigrilinea*, sp. n.

Head, collar, and tuft on prothorax blackish; tegulæ greyish; thorax and abdomen fuscous grey.

Primaries greyish, sparingly sprinkled with black scales; a narrow black streak runs from costa in an oblique direction to the end of discal cell, thence longitudinally to the outer margin. Secondaries fuscous grey. Under surface fuscous on primaries, rather paler on secondaries.

Expanse 66 millim.

One female specimen taken in July at Chang-yang.

Habitat. CENTRAL CHINA.

123A. *Somera pryeri*, sp. n.

Primaries greyish white, freckled and clouded with dark grey; antemedial line blackish, wavy to median nervure, thence angled and curved to inner margin, it is preceded by a blackish interrupted band which increases in width towards the inner margin, the space between line and band of the clear ground colour; post-medial line

blackish, wavy and indented, bordered internally towards costa, and externally towards inner margin, with lunules of the clear ground colour, the line is followed by an irregular, macular, dark grey band, and there is an ill-defined band of the same colour, commencing as two short blackish lines on costa midway between the antemedial and postmedial lines, and terminating on the inner margin near the former; submarginal line blackish and wavy. Fringes dark grey chequered with whitish towards outer angle. Secondaries fuscous grey, the apical area greyish white with darker grey markings; fringes paler, preceded by a brownish line. Under surface reddish-brown on primaries; the inner marginal area whitish; secondaries whitish slightly tinged with reddish-brown.

Expanse 60 millim.

One female specimen in Pryer's collection.

Habitat. JAPAN.

Genus *TURNACA*.

Walk.; Hampson, *Fauna Brit. Ind., Moths*, i, p. 136 (1892).

107A. *Turnaca delineivena*.

Turnaca delineivena, Swinhoe, *Trans. Ent. Soc. Lond.*, 1894, p. 159.

Described from the Khasia Hills. I have one male example from the province of Kwei-chow, where it was obtained in June or July.

Distribution. KHÁSIS; WESTERN CHINA.

Subfamily *CHALCOSIINÆ*.

Genus *PINTIA*.

Walk., *Cat. Lep. Het.*, ii, p. 280 (1854).

235A. *Pintia litana*.

Pintia litana, Druce, *Ann. and Mag. Nat. Hist.*, (6) xviii, p. 235 (1896).

Described from Hunan.

Habitat. WESTERN CHINA.

Genus *CORMA*.

Walk.; Hampson, *Fauna Brit. Ind., Moths*, i, p. 268 (1892).

245A. *Corma laranda*.

Codane laranda, Druce, Ann. and Mag. Nat. Hist., (6) xviii, p. 235 (1896).

This species was described from Hunan.

I have seven male specimens and three females from Omei-shan, taken in May, June, and July.

Habitat. WESTERN CHINA.

260A. *Chelura glacialis*.

Chelura glacialis, Moore, Proc. Zool. Soc. Lond., 1872, p. 570; Hampson, Fauna Brit. Ind., Moths, i, p. 284 (1892).

Three male examples taken in June or July by a native collector in the province of Kwei-chow.

Distribution. SIKHIM; BURMA (*Hampson*); WESTERN CHINA.

LIMACODIDÆ.

Phocoderma betis.

Phocoderma betis, Druce, Ann. and Mag. Nat. Hist., (6) xviii, p. 236 (1896).

Described from Hunan.

I have seen the type, and find that it is identical with the specimens from Western China which I have referred, I think correctly, to *P. vetulina*, Koll. (No. 365).

377A. *Cania hatita*.

Cania hatita, Druce, Ann. and Mag. Nat. Hist., (6) xviii, p. 236 (1896).

Described from Hunan.

Habitat. WESTERN CHINA.

Family URANIIDÆ.

Genus ALCIDIS.

Hübner; Westwood, Trans. Zool. Soc. Lond., x, p. 524 (1879).

Alcidis zodiaca.

Nyctalemon zodiaca, Butl., Ent. Mo. Mag., v, p. 273 (1869).

Alcidia zodiaca, Westw., Trans. Zool. Soc. Lond., x, p. 524 (1879).

Alcidis zodiaca, Kirby, Cat. Lep. Het., i, p. 16 (1892).

Butler's type was stated to be from North China, and obtained in 1857 from Mr. Fortune's collection.

Distribution. NORTH CHINA? ; PAPUA ; NORTH AUSTRALIA.

NOTE.—Reference to this and the following species was omitted in my paper "On Lepidoptera-Heterocera from China, Japan, and Corea," published in 1897 (Ann. and Mag. Nat. Hist. (6) xix.).

Family EPIPLEMIDÆ.

Genus SCHISTOMITRA.

Schistomitra funeralis

Schistomitra funeralis, Butl., Trans. Ent. Soc. Lond., 1881, p. 4.

The examples in Pryer's collection were from Nikko and Fusi-yama. Mr. Manley of Yokohama sent me a number of specimens.

Habitat. JAPAN.

Family GEOMETRIDÆ.

Psychogoës aterrima, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 400 (1877); Ill. Typ. Lep. Het., ii, p. 8, pl. xxiii, fig. 8 (1878).

Plcmyria tibiale, Leech, Ann. and Mag. Nat. Hist., (6) xix, p. 569.